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ROYAL COMMISSION ON MATTERS OF HEALTH AND SAFETY ARISING FROM THE USE OF ASBESTOS IN ONTARIO

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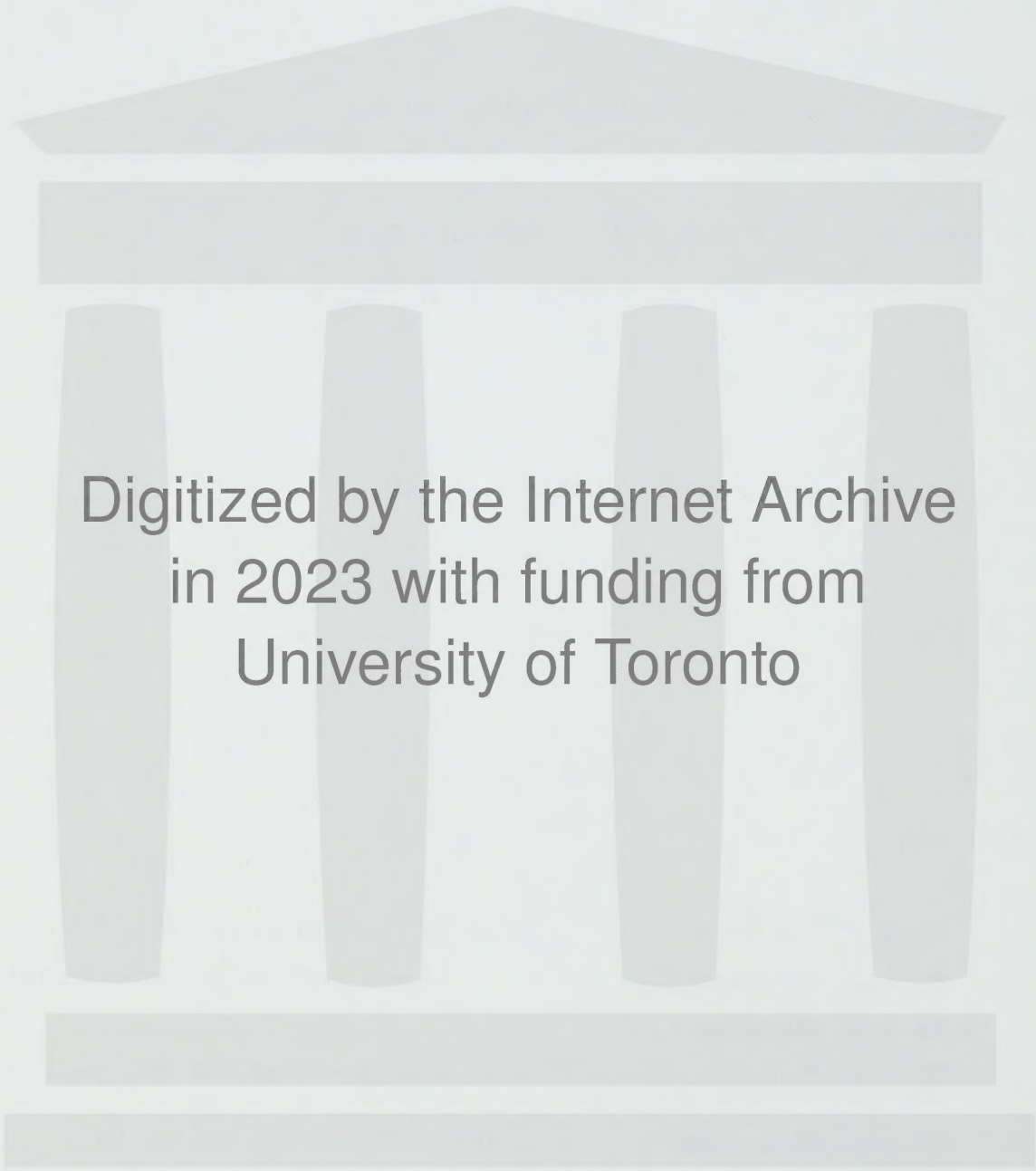
Mr. E. Cauchi	
Mr. A. Buonastella	Asbestos Victims of Ontario
Mr. M. Edwards	Government of Ontario

180 Dundas Street
Toronto, Ontario
Friday,
July 16, 1982

VOLUME 51



ROYAL COMMISSION ON MATTERS OF HEALTH AND SAFETY

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VOLUME 51

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THE FURTHER PROCEEDINGS IN THIS INQUIRY RESUMED PURSUANT TO ADJOURNMENT

APPEARANCES AS HERETOFORE NOTED

DR. DUPRE: Well, may we come to order, please?

This morning the Commission warmly welcomes Dr. Cameron Gray, the present president of the University of Toronto, consultant to the Workmen's Compensation Board, sometime backfielder of the Varsity Blues.

Sir, you are most welcome, indeed.

Miss Kahn, would you swear the witness, please?

DR. CAMERON C. GRAY, SWORN

EXAMINATION-IN-CHIEF BY MR. LASKIN

Q. I'm tempted, Dr. Gray, to ask you about your athletic qualifications, but let me restrict myself and ask you if you would be good enough just to tell us, for the record, your educational background and your professional qualifications?

A. Yes. I'm a graduate of the University of Toronto in medicine in 1939, and am currently an associate professor in the department of medicine at the University of Toronto, at the Toronto General Hospital.

Q. Do you have any particular specialty in which you are engaged?

A. I have my fellowship in internal medicine, from the Royal College of Physicians and Surgeons, and I have my...I am a fellow of the College of Chest Physicians, which is an American group.

Q. When did you become a fellow of the College of Chest Physicians?

A. In 1966.

Q. As I understand it, in addition to your position you have some relationship to the Workmen's Compensation Board?

A. Yes, I do.

Q. Can you tell us, first of all, what is that relationship?

A. Well, I guess it's two parts. As you know, I have been, since 1973, with the advisory committee of occupational chest disease, as a consultant. And I have also, for the past two years, been a special consultant to the Workmen's Compensation Board in occupational chest disease.

Q. We have run into some difficulty over the past couple of days in distinguishing amongst the personnel who meet as the advisory committee, as between members and consultants. I take it you are a consultant?

A. I am one of two consultants.

Q. The other being Dr. Muir?

A. Dr. David Muir.

Q. What is the distinction between a member of the advisory committee and a consultant?

A. Well, I guess the difference is that the consultant has had some clinical or academic or university experience in chest diseases, and therefore qualifies...like, I do have my fellowship in internal medicine...but there is also one of the members of the committee that does have his fellowship as well.

A. (cont'd.) Another difference, I maybe should say, is that the members are the ones who are the active participants in the examination of the claimant, and the presentation of the case to the total committee when it meets.

Q. You, yourself, as a consultant are then, I take it, not engaged in the examination of any potential...any claimants?

A. That's right.

Q. Would the same hold true for Dr. Muir?

A. Almost exclusively, but he does see the odd claimant in Hamilton, who he then presents at the committee.

But in general, he sees very few, in contrast to the five other members of the committee.

Q. Apart from that distinction, are your responsibilities and duties at the advisory committee the same as the members of the committee?

A. I think they are basically the same, but you might say they do refer to us at times for our opinion - particularly if there's maybe some other factors present. As my background is clinical chest medicine, there may be some advantage of me being there with respect to the person having another disease process besides the industrial-related disease or the reported disease.

Q. Do you attend all of the meetings?

A. No. For the first several years I did attend all the meetings, because first I wanted to gain experience in the whole field of asbestosis, silicosis and other pneumoconioses, but since Dr. Muir joined the committee, he and I go sort of every second week, for certain, to see new cases that are being presented, new patients that are being presented, and also to consider some of those that have been problems with respect to the advisory committee or the Workmen's Compensation Board, and sometimes to see those that are referred back for reconsideration

A. (cont'd.) with respect to survivors benefits.

So I attend every second week, and Dr. Muir and I attempt, and usually do attend, the same days.

Q. Does the committee meet weekly?

A. Yes, it does.

Q. Is there a particular day of the week it meets?

A. Yes. Tuesday morning.

Q. How long are the meetings, in general?

A. They last from two and a half to three and a half hours.

Q. Just going back, when you were first appointed as consultants, did your appointment come from the Board?

A. I wondered if you might ask me that. I think the first consideration came from Dr. Cowl, who was then the chairman or the secretary of the advisory committee, which was in effect. But then the actual invitation to join the Board, to join the committee, did come from the Board, as I met with Dr. Stewart and another member, Dr. Powell, to see if I would be interested and could spend the time, and so on.

So the invitation really came from the Board, finally.

Q. From the medical services division?

A. Right.

Q. Did you have any contact, at that initial stage, with any members of what we have come to know as the corporate board, at the very top?

A. No, sir.

Q. No?

A. Well, with the exception of Dr. Powell, who I think was then the...I'm not sure of his position, but I think he was like Dr. McCracken is now.

Q. Head of medical services?

A. Yes.

Q. Fair enough. And since you have come onstream, has your appointment been from time to time, or is it taken that it just continues?

A. For the first few years, it just continued. But in the last several years I have been presented with a contract to sign.

Q. A written contract?

A. Yes.

Q. Is that on a yearly basis?

A. On a yearly basis.

Q. Can you just tell us, basically, what it says? What terms are in it?

A. Merely that I am appointed to the advisory committee and expected to attend it, but I would not have any of the benefits of the Compensation Board as far as pensions or other benefits, I would be given an honorarium at a certain fixed amount on a monthly basis. That was about the limits of it - about four or five component parts to it, and the request of the signature by me and by...actually it was Dr. Dowd who presented it to me.

DR. DUPRE: May I ask, Dr. Gray, does this contract cover both your services as a consultant to the ACOCD and your services as a consultant to the medical services division?

THE WITNESS: Sir, I have two contracts.

DR. DUPRE: There are two different contracts?

THE WITNESS: Yes. Quite unrelated.

MR. LASKIN: Q. Each covering your particular spheres of responsibility vis a vis the WCB?

THE WITNESS: A. Yes, that's right.

DR. DUPRE: Do you happen to know whether it's the same officer of the WCB who has signed both contracts on behalf

DR. DUPRE: (cont'd.) of the WCB, or is it people in different parts of the WCB?

THE WITNESS: No, the person that has presented me with a contract and has asked me to sign it in his presence has been the same person.

DR. DUPRE: Okay.

THE WITNESS: So I presume that he is the countersigner.

DR. DUPRE: Is that person Dr. Stewart, by the way?

THE WITNESS: No, it isn't. No, it's Dr. Dowd.

DR. DUPRE: Dr. Dowd.

MR. LASKIN: Q. In respect of your relationship with the ACOCD, can I just get straight, do you consider yourself a consultant to the ACOCD, or a consultant to the Board?

THE WITNESS: A. No, strictly to the ACOCD.

Q. When the ACOCD comes to deliberate on a case, are you part of the decision-making mechanism, or are you simply giving advice to the full-time members?

A. It's a combination of both, but I am a voting member, so to speak.

Q. You do have...so to speak?

A. Of the group, yes.

Q. To the extent that votes are case, you would have...

A. I am one vote, and I don't have any more than that.

Q. And Dr. David Muir would be the same?

A. It would be the same.

Q. What's the general case load of the ACOCD? Can you give us some sense for that?

A. Yes. It does vary considerably with the complexity of the case that is being presented. On the days

A. (cont'd.) that Dr. Muir and I attend, we vary from four to seven cases that are reviewed in detail, and with an opinion being passed.

When I attended previously, and I think it still is currently true, when you might say more routine cases are being presented, or they are coming back for re-evaluation or reassessment, the Board might see fifteen to twenty-five in the period of time.

Q. I take it that it's arranged by someone or other that every second Tuesday, the Tuesdays you attend, the more difficult cases will be separated out so that you and Dr. Muir will have some input into those cases?

A. I think that's true, yes.

Q. Do you know who does that?

A. Well, it used to be Dr. Cowl. Of course he wasn't there when Dr. Muir was there. Dr. Vingilis is the one who has been primarily responsible for that.

Q. We've heard as to basically the functions of the ACOCD, and just let me ask you whether I've got them right. Dealing with claims for asbestosis, as I have understood it, you are number one being asked to confirm or otherwise that there is indeed a diagnosis of asbestosis?

A. Yes, that's number one.

Q. And secondly, if there is, to affix some percentage of impairment to that?

A. That's right.

Q. Are those the...

A. Those are the two main roles that I think we play.

Q. Are there any other roles in relation to asbestosis claims?

A. No.

Q. Can I ask you whether you ever received any instructions from the Board, or any employee of the Board, as to the manner in which the advisory committee, and you in particular, were to approach those two tasks?

A. No, we have not, except for that general principle of diagnosis and rating.

Q. How would...I suppose what I really...I can understand the diagnosis part. When you get to the rating part, I suppose that would be a function that even though a doctor was experienced in chest disease and so on, you might not necessarily have to do in your general practice?

A. No, no.

Q. I'm just wondering, how are the members of the advisory committee educated as to the approach they should take with respect to assessing percentage impairment?

A. I think the education is by experience, and by the evidence that comes out of the presentation of the history that is taken by the examiner of the claimant, along with the evidence from the radiograph, the chest x-ray, the evidence from the pulmonary function studies and any special tests.

Q. I suppose what I'm grappling for, Dr. Gray, and perhaps you can help me, the advisory committe, has it ever given or has it developed on its own, the criteria or guidelines within which to assess percentage impairment?

A. No, we have never had any guidelines.

Q. Have you ever developed your own criteria?

A. Not as such. I think we come to it from a matter of discussion and evidence available.

Q. And I take it, experience, judgement and familiarity with a number of cases by now?

A. Yes. Yes, and also I think it makes a difference on following the claimant from year to year.

A. (cont'd.) In other words, when he has no disability or no...let's say impairment...no impairment, to the signs that he has early signs of impairment, and then as he is followed from year to year, or every two years, depending on the followup, changes are noted which would dictate that we raise the rating or leave it alone.

Q. Could you very briefly for us take us through the deliberations of the ACOCD on a particular claim for asbestosis, and if I were sitting in your committee room what would I observe happening, what information do you get, what further information do you seek and how is the deliberation conducted?

A. I hope I don't leave out any important points, but it primarily begins with a physician - one of the five members, who has examined the claimant - presenting the information as a case history.

This is usually quite complete and I have always been impressed with the detail that has been taken and recorded by the examining physician with respect to the symptoms, emphasizing those symptoms that have to do, of course, with the chest - shortness of breath being the one that's probably the most stressed - but also cough sputum, pain, wheezing, so on.

The occupational background of that person is presented to us - where they worked, when they worked, how long they worked, when they first started to work and what is known about that particular type of plant or exposure.

Then the radiology, the radiographs are put up on a screen and we commonly have the advantage of a sequential series of x-rays taken when the man maybe started to work and going along to the claim when the claim is registered, when presumably there has been some change in the radiology because

A. (cont'd.) that's one of the common ways that a claim is filed, I believe.

Then the pulmonary function studies are reported and discussed, the electrocardiogram has usually been taken in these individuals and that, too, is presented and discussed, and with those major bits of evidence of history - the radiograph, the pulmonary function studies and cardiogram - it is then that our deliberations take part as to does the man have the diagnosis, if so does he have any impairment of function because of the diagnosis.

Q. Does the examining physician present you with his initial recommendation?

A. We often ask him what he feels about it, and from your...you know, I think we miss...I miss not seeing the man, often, I must say, because I do have to depend on somebody else's observations, but as time has gone by and these people have obvious experience, I have come to sort of, as I say, accept it or say this is what is happening.

But I'm sorry, your question...?

Q. My question really was, does the initial...does the examining physician present you with an initial recommendation as to his...

A. Yes. He may be asked 'do you feel this man is impaired or do you think he is not as well as when you saw him last time', but that just may be his first comment, but that doesn't make our decision...his opinion is not binding to our decision.

Q. And you mentioned in fact that you sometimes miss having had the opportunity to see the patient, and I was going to ask you about that. Is the invariable practice of the committee that there is only one of the members who sees the patient, actually?

A. I think that's usually true. It's quite possible when many of these examinations are carried out at the Board office that one of the physicians may say, come on in and see this man and see what you think of him, but as a rule it's one man who sees the patient in detail, and then presents it.

DR. DUPRE: Dr. Gray, could I ask you the following? It has come to our attention in the course of these hearings that quite frequently a claimant who is examined by the ACOCD was previously,prior to the claim, either x-rayed at the very least, or perhaps otherwise examined, by the chest disease service of the Ministry of Labour. Of course it has also come to our attention that there is a considerable overlap, although it varies from year to year depending on who is on what, between the membership of the ACOCD and the physicians in the chest disease service.

I was wondering, in terms of the deliberations of the ACOCD, the extent to which these deliberations might be enriched from time to time by the fact that more than one member of the committee would have firsthand familiarity with the case because one member would have seen the individual as a member of the ACOCD, and the other might well recall that individual from the chest survey activities.

Do you ever run into this?

THE WITNESS: I'm not sure I can answer that quite correctly, but my understanding is that the Ministry of Labour in their surveillance program has technicians carry out the chest radiograph, and its technicians do the pulmonary function studies of limited type, and that they are not actually, in fact, examined.

DR. DUPRE: Okay. So no member of the ACOCD who is with the chest surveillance group would have actually seen the patient, but such an individual, of course, might well have

DR. DUPRE: (cont'd.) scrutinized the results of early x-rays and pulmonary function tests in his chest survey capacity?

THE WITNESS: Exactly.

DR. DUPRE: Does this help shed light in the deliberations to any degree? Is it a useful thing?

THE WITNESS: I think it's useful for us to have the radiographs available, and the interpretation of the radiographs, because these have been done usually by people who are experienced and are seeing literally hundreds or thousands of x-rays and become very experienced in passing an opinion as to normal, borderline, abnormal or clearly abnormal. So I think that does come into the picture.

But we don't always have access to the...I've seen the little card myself, but we don't always have access to the year that the chest film was taken or the pulmonary function studies were carried out, although we may have access to the actual radiographs, because they will be displayed to us for consideration.

DR. DUPRE: The reason why I'm asking you this question and why I just want to pursue it a bit and why it's almost philosophical is for the following reason, Dr. Gray: you know, professors of public administration suffer from their own disabilities, one of which is very often to approach government programs of any kind with a neat and tidy mind, and of course after you have been a professor of public administration for awhile, you begin to learn that you should temper the neat and tidy mind - which is one of the things you take out of your training - with, of course, the extent to which the very nature of a particular activity...and this is quite frequently the case in scientific activities, for example...demands that the excesses of a neat and tidy mind be held in check.

DR. DUPRE: (cont'd.) Now, the point I have in mind, Dr. Gray, is this, you see, that neat and tidy mind approach, I think, would lead me to question very, very seriously the practice whereby you have a chest survey group that comes into contact with indeed interpreting and sometimes helping initiate a claim on the basis of the interpretation, interpreting x-rays, pulmonary function tests, and at this juncture, you know, the near and tidy mind instinctively rebels on grounds of equity and all kinds of other things, when it examines the situation where many of the same people who were at the initiating end in a way, or the surveillance end through the chest service, wind up as members of the ACOCD offering expert advice on what is at this point a matter that is into adjudication.

Now, I guess that given what the neat and tidy mind approach tells me, what I am looking for is any comments you may have that would lead me to think once again about the neat and tidy approach, and what would lead me to think once again, for example, would be...well, the extent to which the fact that this overlap between chest surveillance and ACOCD means that you have expert physicians who have the added benefit, if you will, of having, so to speak, tracked the case from the surveillance stage.

Do you have any comment on...you see what my problem is?

THE WITNESS: I do, but it doesn't seem to me to be a problem. Maybe I am misunderstanding you.

DR. DUPRE: Well, then, I would like you to explain to my why there...just tell me what you feel about all this.

THE WITNESS: I think the surveillance program, as I see it, only brings to light those individuals who might register a claim and who then come before the advisory committee without any influence by a member of the Ministry of Labour or

THE WITNESS: (cont'd.) by the interpretation of the chest radiograph or the pulmonary function studies. That's only the initiation of the claim, and from that point on I think the members of the advisory committee are acting independently of previous observations. In fact, some of those patients that are so brought forward are not accepted, as you know.

So that I can't see there being an influencing factor or a conflicting factor with the advisory committee.

It may be true that the...you know, one person who has read those films might see that claimant at the advisory committee offices for the initial examination with respect to the claim, but that's not necessarily so at all.

DR. DUPRE: Now, I'll take what you have just said, that you haven't seen any particular conflicts which seem to detract from it, from your point of view, but let me ask you this: does the membership of the ACOCD draw positive benefits... by that I mean positive benefits in terms of being able to perform their function better than they otherwise would...from the fact that they are or have recently been actively involved in the chest surveillance?

Does, for example, the very fact that they are in the chest surveillance help to account for why they have seen a large volume of x-rays and pulmonary function test results, this very volume then perhaps contributing to the very experience that they bring to the deliberations of the ACOCD?

THE WITNESS: Sir, again I maybe can't answer your question quite correctly, but I do not believe that the... all four members of the ACOCD do see the surveillance films. I think there is one man in particular, Dr. Vingilis, and there is another man who is a radiologist connected with the Ministry of Labour...

DR. DUPRE: That would be Dr. Roos?

THE WITNESS: No. I think he is seeing some now, but he didn't so many before, but a Dr. Chan, who sees many and reports on these.

But I don't see any, Dr. Muir doesn't see any, and I don't think that two or three other members would see these films as a member of the advisory committee and being in the surveillance program.

DR. DUPRE: So in other words, one would not necessarily at all have had to have been involved in the surveillance program to have gained the kind of experience that reading x-rays and pulmonary functions tests for what is in overall terms a relatively-exotic disease, as a member of the ACOCD?

THE WITNESS: Wouldn't have to. No, they wouldn't have to be, sir.

DR. DUPRE: Thank you.

MR. LASKIN: Q. Can we just explore for a few moments in perhaps a little more detail this diagnosis of asbestosis and affixing percentage impairment, and I note and probably should have mentioned it earlier, but I note that you were a member of the task force on occupational respiratory disease which was established by the Canadian Thoracic Society and the health standards division of the federal Department of Health and Welfare?

THE WITNESS: A. Yes, I was.

Q. Which was chaired by Dr. Ostegay?

A. Exactly.

Q. You were, just incidentally, as I recall, also medical consultant to the Ham Commission?

A. Yes, I was.

Q. The task force, as you are aware, sets out certain diagnostic criteria for the diagnosis of asbestosis, and

Q. (cont'd.) can I ask you this generally, are those diagnostic criteria that are found in the task force criteria that you endorse personally?

A. Yes, I think they are, personally, yes. They are.

Q. What it says is, and for asbestosis the essential diagnostic criteria are, one:

"A significant history of occupational exposure", and two, "the presence of persistent radiological abnormalities consistent with at least category one of the ILO UC, 1971, international classification of pneumoconiosis".

Then goes on to say: "In workers with a significant history of occupational exposure to asbestos, the presence of dyspnea.."?

A. Dyspnea, yes.

Q. "basal rales, clubbing and evidence of a restricted pattern of pulmonary function, suggests a diagnosis of asbestosis even in the absence of compatible x-ray changes".

You would agree with that?

A. Yes.

Q. Is that kind of approach to the diagnosis of asbestosis the approach that is taken by the advisory committee?

A. Yes, it is. Because as I mentioned, a history of exposure some time in the past, some details of that exposure, are essential. There has been some debate as to whether radiological changes must be present to make the diagnosis, because at times an individual may have two or three of the second factors, in particular the basal rales that one hears, particularly if there has been a prolonged period of exposure, and if that individual had some abnormality of pulmonary function suggesting a restrictive limitation of function, or a diffusing

A. (cont'd.) factor, then in all probability that person would be accepted as having asbestosis. But it's pretty uncommon, without having some radiological evidence or suspicion, to feel certain about it, and one might say we think this person has asbestosis, but usually if those are the criteria, commonly there is little or no impairment

DR. MUSTARD: I would just like to pursue this a bit further, and go to the opposite side of the coin, so to speak, and the function of the advisory committee.

A case is sent to you and I presume would involve a person who has a history of exposure to asbestosis, subject to the earlier discussions you have had with members of the Commission, and I presume the claims would be for asbestosis, and the claim is denied.

I guess what I would like to hear from you is a little bit about what is missing that lead to denial of the claim.

You have a history of exposure to asbestos, and you have a person who obviously must have some kind of problem which leads a claim to be made. What kind of things are you being presented with lead you to deny claims?

THE WITNESS: I think basically it's the absence of some of these criteria that essential for the diagnosis.

You see, a number of the claims, I think, are the result of a noted change in the x-ray, so that...in the surveillance program...so the claim is filed on the basis of that.

There are reasons for the file being claimed (sic), basically that some people who have worked the same length of time and worked side by side, and Mr. A gets compensation, Mr. B doesn't, he wonders why he doesn't, and he files a claim.

But I think that if a file was not accepted, the claim was not accepted, it would be because there was no

THE WITNESS: (cont'd.) supporting evidence apart from the exposure history.

DR. MUSTARD: Supposing...this may never occur, but theoretically it could occur...supposing a claimant's family physician decides that the individual is showing some elements, in their judgement, of shortness of breath, a problem that way, history of exposure to asbestos and indeed the suspicion is that he has got chest disease due to exposure to asbestos, that case now comes to you, but it doesn't have strong radiographic evidence of chest changes compatible with it, and I think we both know that shortness of breath is a very subjective...

THE WITNESS: Subjective, right.

DR. MUSTARD: ...do you get cases like that, and if so, how do you handle them?

THE WITNESS: Yes, I think we do get cases like that because the family physician will often attribute symptoms to the work area, which may be asbestos in one instance, it could be silica in another, and some occupational fact like a baker's asthma, so to speak, so I think the presentation with a symptom, which as you implied can be very subjective, cannot be supported by any objective evidence of an alteration in FEV 1, FEC or diffusing capacity, would make one question whether that dyspnea was in fact a true symptom associated with the supposed asbestosis.

DR. MUSTARD: Let me take you a bit further on this. Let us suppose that by the conventional criteria of pulmonary function tests and x-rays the evidence just doesn't come forward. Let us suppose you introduce a new technique - that in effect you biopsied the lung of all these individuals - and let us suppose that you now found evidence of fibrosis in the lungs...I think we both could accept the fact that you can get fibrotic developments in the lung before you can pick it

DR. MUSTARD: (cont'd.) up through either pulmonary function tests or through x-rays...

THE WITNESS: Yes.

DR. MUSTARD: ...how would you diagnose that case?

THE WITNESS: Well, I think again we might, with good biopsy evidence...

DR. MUSTARD: Theoretically, of course.

THE WITNESS: Yes, right. ...if there had been a reason for biopsy and the biopsy did show fibrotic changes with ...I think Dr. Ritchie emphasized this...many asbestos bodies being present or many asbestos fibers and bodies...I think the diagnosis of asbestosis might be accepted.

That again doesn't imply impairment, necessarily.

DR. MUSTARD: No, I realize that, but in other words I guess what I'm getting at is that if technique for examining the lung becomes more sophisticated through the...by sophisticated I mean detect the changes earlier than you can with current technology...then the timing of the diagnosis would presumably change.

THE WITNESS: Yes, right.

DR. MUSTARD: So in effect I guess what I would say now my interpretation of what we have listened to is as follows, and I would like you to tell me if I am dead wrong in my interpretation, the way you used to do when you were a professor teaching me,..

DR. DUPRE: He is much too young for that.

DR. MUSTARD: ...we have a condition which probably begins with exposure to the asbestos fibers and progresses to be clinically significant, over a period of time. Our ability to detect the changes depends upon (a) the technology we can apply - x-rays and pulmonary function tests - and (b) our capacity clinically to detect those changes, and therefore the diagnosis

DR. MUSTARD: (cont'd.) of asbestosis really at the present time is governed by the history of exposure and (b) our technological and clinical skills in being able to detect changes in the lung.

THE WITNESS: That's right.

MR. LASKIN: Thank you, Dr. Mustard.

MR. LASKIN: Q. The task force, when it dealt with the diagnostic criteria, of course, referred to x-ray changes according to the ILO UC 1971 international classification, and the evidence we have heard is that the committee, the advisory committee, does not use that classification.

THE WITNESS: A. That is right.

Q. Can you help us as to what classification, if any, the advisory committee does use with respect to asbestosis claims?

A. Yes. There is a so-called Ontario classification, and I'm not sure if it has ever been presented to you before or not, but it followed a bit on the South African experience, and it was accepted, I think, by the silicosis referee board, so it dates back to whenever that started - twenty-six or twenty-seven, I've just forgotten the exact year - which has been based on radiological changes leading up to a five as a definite diagnosis and a four as being a pre-diagnosis, or suspicious changes that might be on the side of coming into disease rather than being actually in the stage of disease.

The task force, as you know, did make a recommendation that for uniformity all groups should use the ILO classification - I think there's a new one out, 1980 - which is probably the one that would be recommended now rather than the 1971 or 1972 classification, because that task force was 1975 or 1976, I think, 1977.

So we do have a type of classification or coding,

A. (cont'd.) if you will, that is used by those who interpret the radiographs, on a basis of zero up to something like seventeen, and I don't know the whole numbers, but it includes not only minor changes from the normal, which presumably was present at the time of employment, to early streaking or articulation, so-called, to changes which become definite irregular densities, meaning the person has radiological evidence of an abnormality - presumably asbestosis if the man worked with asbsetos, but it could be due to some other cause, and I think it has been brought out before that many radiographic ...or the radiographic changes may be similar in many disease processes and are not absolutely specific for asbestos, but by presumption with exposure and so on, it would be most likely to be true.

Q. In terms of the deliberations of your advisory committee, is there a body or group that is interpreting the x-rays and putting some classification on them before they come to your committee?

A. Well, there is, but we don't necessarily have that information. In fact we don't...I think we know it has come to us because there probably has been that change, but we are not given the actual ratings over the years and the date of the change in rating.

Q. Is the committee doing its own reading and interpreting of the x-rays?

A. Yes.

Q. I see.

A. Yes. And I think again, as I mentioned and I think we would like to stress, we have the advantage of having a series of films put up - which may be eight or ten or twelve or fourteen - over the years up until the current date of examination.

Q. Is the term 'asbestos fiber dust effect' a

Q. (cont'd.) familiar term to you?

A. It's familiar to me, yes.

Q. You, I take it, are aware that it forms one of the Board's guidelines, at least with respect to the diagnosis of a pre-asbestotic condition?

A. Yes, I am aware of that - more from my association with the Board than from the advisory committee.

Q. All right. Does the advisory committee ever get involved in making an assessment as to whether an asbestos fiber dust effect is present?

A. I don't recall us ever stating that or recording it or reporting it, to the compensation board.

Q. I take it then you may get involved in considering that matter in relation to your other role at the WCB?

A. No, I don't really, because in my other role they have left me pretty well out of the asbestos/silicosis picture because I'm...it is like wearing two hats.

Q. Ah!

A. So I do not really get involved with asbestos claims through my consulting capacity at the Board.

Q. I see. Only through the advisory committee?

A. Only through the advisory committee.

Q. Have you had an opportunity to look at the criteria that are set out under asbestos fiber dust effect?

A. I have seen the guidelines, but I couldn't recite them or...

Q. Fair enough. I was just going to ask you a general question and it's as simple as - do they make sense to you? Does the concept make sense to you?

A. The concept does with the view that I think they were established to see whether or not a person might qualify

A. (cont'd.) for some alternate program or removal from the effects, or from the asbestos exposure.

Q. And you...

A. If I can go back to silicosis, and with the Commission we talked about presiliciosis, which is a pretty vague statement to say somebody has presilicosis, but it was implied that their changes were occurring in a radiograph, which if they persisted would lead to silicosis, and with that, the Commission felt that the person might be considered to be relocated or retrained or so on, and I think it maybe has a similar effect in interpretation by the Board, but we are not, we would say, in I think the committee, that that does not make a diagnosis, nor would it imply impairment.

So we don't use it as such.

Q. I see.

DR. MUSTARD: Can I pursue this subject a bit further and go back to the earlier discussion?

MR. LASKIN: Yes, please.

DR. MUSTARD: Margaret Becklake, in her editorial in the June 17th issue of the New England Journal of Medicine...

THE WITNESS: I heard you refer to it to Dr. Ritchie, yes.

DR. MUSTARD: A fellow chest physician.

THE WITNESS: Yes.

DR. MUSTARD: She is referring to the article by Craighead and Mostyn (ph.), but gives her own comment.

She says:

"The involvement"...

it's the second column in the editorial, eighty-one...she says:

"The involvement of small airways in the early stages of an asbestos-created lung fibrosis has in all likelihood its clinical counterpart".

DR. MUSTARD: (cont'd.) And she refers to an article of her own that she has published...

"Although there is no evidence about whether these abnormalities are reversible or not"...

and that poses a problem for me, and I'm sure you are aware, in that she is talking about very early changes and I guess she is probably in her article referring to some newer approaches to looking at pulmonary functions and coming to a point...and if you come down to the concept of pre-asbestosis in the sense as a pathologist, I have trouble with that, so it's obviously a clinical diagnosis because with a pathologist there would be a continuum of fibrotic reactions in the lung from the exposure to the asbestos fiber. You would have problems in saying well, when is it pre and when it is post - it's the fibrosis due to asbestos, which in a pathological sense is asbestosis.

THE WITNESS: Yes.

DR. MUSTARD: Now, when you slip over to the other side and you try to make an administrative decision about whether you are going to accept a claim or whether there is impairment of function, and a person has got asbestosis, and try to use the term pre-asbestosis, you get into a kind of a conflict with the biological process...at least I think you do...and the thing that comes up to me as a bit of a problem here in doing this, is another problem, and that is that what we have been told about the outcomes with exposure to asbestos fiber versus exposure to silica is a bit of a difference and the risks of cancer are much higher with the asbestos exposure than with silica...indeed there is a very low incidence...and so therefore another problem comes into this process. That is when you tell a person they have got asbestos fiber disease, it probably creates in their mind a spectrum of possible outcomes for them.

THE WITNESS: Mmm-hmm.

DR. MUSTARD: Which comes back to the other point that Dr. Becklake talked about - at the present moment there is no evidence that when you take people away from exposure to asbestos fibers that the process that has already been put in place by the fibers there is reversible, so that when you put all this together, when you put the biology of the process together, the dimensions of the health effects of the asbestos exposure, say as opposed to silica, and look at it from that standpoint and then slip over to the administrative need to have one condition defined one way and another one defined another way, one seems to get into a bit of a quandary as to whether in effect the use of a term pre-asbestosis from a medical sense is really a sound thing to do, and whether that really doesn't create some very serious downstream conflicts when you try to take the medical/biological sense and slip it over to the handling of the human condition in an administrative sense.

I wonder if you would comment a bit about that dilemma, and Dr. Becklake's comments as well, about the early changes and maybe we'll start to pick them up with more sophisticated techniques.

THE WITNESS: Yes, I think it is a conflict to ever say something is pre. I mean, I may have presarcoidosis, meaning that I haven't got any sign of it now, but I may have it later.

The feeling, I think, in the asbestos situation has been there have been some changes radiologically that would make one consider that progression may occur. I think this is what is being looked at, at the Board, as the AFDE.

When we see that person, we don't recognize it as the disease asbestosis radiologically. We don't recognize it, I believe, as having had any pulmonary function impairment that would make a rating follow.

THE WITNESS: (contd.) I know Dr. Becklake has been one of those who has talked about early changes and small airways disease, but she has also commented that sometimes small airways disease is the result of peribronchiolar fibrosis, which is narrowing of that bronchiol, and that strikes me as not being too early disease, because it has got to the stage where there has been contraction or constriction and narrowing of that area because of that reason.

The classical, as you know, changes from pulmonary function in the pneumoconioses and asbestosis is one of restriction, is one of a lowered vital capacity and a disturbed diffusing capacity, but she has reported up to, I forget whether it's eleven or eighteen percent, having as their primary abnormality small airways disease, where there may be thirty to fifty having restrictive defects and some combination of the two going together.

So that it must be recognized that in asbestos patients...and she has, as an epidemiologist, corrected this for socioeconomic atmosphere, smoking, etc., so that she really believes there is something to the direct asbestos effect.

It brings up that point which we are facing and have not come to clear cut conclusions, as to whether dusts such as silica dust, asbestos dust, other dusts, may be responsible for a degree of airways disease on its own.

In other words, the discussion arises as to dust bronchitis and industrial bronchitis.

Whether that's pertinent to her comments, I'm not quite certain. She alludes to this rather, you know, in general terms, and I would think...I'm not sure, but I would think at that stage, if it is truly early, it must be on some pathological evidence that has been accidental in finding, because this person wouldn't have autopsy because of an asbestos disease - or not

THE WITNESS: (cont'd.) likely - that it doesn't play a role in our decision.

DR. MUSTARD: But if that became an established approach, the technique that she is using, that could become part of your...

THE WITNESS: Of our survey of our assessment, of our criteria, you mean?

DR. MUSTARD: Yes.

THE WITNESS: Yes.

DR. MUSTARD: Now, what do you do then with the dilemma of the diagnosis of pre-asbestosis and asbestosis if you have at that point established those changes with the newer technology, earlier?

THE WITNESS: I'm not sure.

DR. MUSTARD: Which gets back to my point, really, there is a dilemma between the biological process that occurs with exposure to asbestos fibers...

THE WITNESS: Yes.

DR. MUSTARD: ...an attempt to apply differentiation using the technology which we have.

THE WITNESS: See, I think the Board has taken an approach with this AFDE to consider that a person may get in trouble and they may have a chance to give them an alternative of getting out of exposure. Yet, as you said...and Dr. Becklake and others have said...to our knowledge there is no proof that removal from exposure will prevent progression of the disease, or even that after removal from exposure the disease may develop. So that we don't know the facts at the present time on what removal from exposure will do, but it doesn't get back to your basic point about the early biological change - which I can't answer.

DR. MUSTARD: Let me just pick up another point

DR. MUSTARD: (cont'd.) now that I'm on this subject. All of us who have to tell people when they have a health problem recognize that the telling of it has an impact on the individual and I think it is fairly well documented that if you tell people who have no symptoms they have high blood pressure, their initiative to go to work changes rather dramatically, even though you tell them you have got effective therapy for them - which is a different problem than with asbestosis.

Have you any feeling about the impact on a member of the work force of being told that he or she has got chest disease which is a result of exposure to asbestos fiber? Does it change their attitude dramatically, and if so, how does one handle that in terms of looking at equitable handling of the man?

I'm thinking specifically of the fact that the diagnosis of silicosis does not carry with me the same connotation in terms of potential outcome for me, as asbestosis.

THE WITNESS: I think that's right. You see, I can't answer the question because I have not been in the position of examining a patient or of telling him that he has or has not the disease, or of following him. But I think in the practice of clinical medicine it is always a concern as to telling a patient that they have a disease when it in fact may not be important or make much change in his future or his life earning or his activities, and another person may react to that very badly and be emotionally upset and tremendously upset by it. And yet you mention hypertension situation - although it may change his lifestyle - another person being told clearly and distinctly that medication will control his blood pressure and will probably allow a pretty normal life expectancy, he may not even adhere to the advice that is given to him. So the compliance

THE WITNESS: (cont'd.) factor comes into the picture.

It has been a policy, as I understand it, with the Board to inform people of changes that have occurred when they have been recognized to occur.

At one time that was not the policy because it was considered that it might be more disturbing than beneficial, and it may end up with that person applying for a claim, being rejected and being upset - why am I rejected when I'm told there has been a change taking place.

I don't know whether that answers the question, but I am concerned, too, about nondisease, so to speak, or nonimpairment of disease, because one person may be lucky enough to have the disease arrested and not progress, and yet his whole life earnings and style of living may be changed because he has been informed about an abnormality.

DR. MUSTARD: Let's pursue that a bit further, and I hope you will wear your hat as a physician in our discussions about this. As we both know, one of the things we were always able to do as a physician is make somebody who is ill feel better just by being very positive to them, and we know now that there are biological reasons for that - things called endorphins, etc., - so that information given to a person has some significant chemical effects within them.

In terms of telling a person that you are pre-asbestotic, is there not a bit of a risk that we create within them all that psychological response that you create in a person when you tell them that you've got, say, cancer or something like that, or asbestosis, and when you tell a person they've got asbestosis, do we not create a series of psychological tensions, psychological problems, in terms of attitudes to work and life - particularly when they have

DR. MUSTARD: (cont'd.) worked with people who have been exposed who they have seen die, probably? It must have an enormous impact on them.

THE WITNESS: Yes.

DR. MUSTARD: As a physician, do you think we should be giving any consideration to that complex problem, in looking at the question of compensation?

THE WITNESS: Actually compensating the person...

DR. MUSTARD: Yes.

THE WITNESS: ...at that stage?

DR. MUSTARD: The effect of labelling a person with a disease due to industrial exposure, which the worker is probably going to know the outcome is bad and life expectancy is going to be shortened. Have you ever thought about as a physician? Not as advising the Board, just as a person who deals with human beings, on a scale of trying to balance fairness and so on?

THE WITNESS: No, honestly I haven't thought of that prior to this, but when you say compensation I think of impairment of function and this may be impaired disability. In other words, you may alter their lifestyle, but the function of the lungs, as such, may still be normal at that stage.

I don't think we can predict with certainty just what is going to happen. I'm not sure enough of these so-called AFDE's have been followed to know what does happen to them in three years or five years or ten years. It may be that they all go on to disabling asbestosis, but I'm concerned about telling them because of the impact. I would be concerned with not telling them because they may say that there was a recognized change at this stage and why wasn't I informed about it because I may have made a request for a change in my lifestyle.

DR. MUSTARD: But now as a physician, do you think

DR. MUSTARD: (cont'd.) that we should be thinking a bit more about the implications of the labelling of a person with a disease process in industrial exposure, and the effects on them in terms of their attitude towards their future?

THE WITNESS: Yes. I think they should be told, but I think should maybe have explained to them that there are great variations in what may happen to them and what the future may hold. But I don't...I suppose that people who go into the asbestos industry nowadays go into it knowing there is some risk, and I think that knowing that they should be told if there is some evidence that the risk that they are exposed to is now becoming suggestive or maybe it is becoming apparent.

MR. LASKIN: Q. Just one further question of this AFDE. I'm just trying to grapple with the difference between a person who might have AFDE, but wouldn't meet the diagnostic criteria of the committee for a finding of asbestosis, and is one of the factors that the...which you might see in someone who has AFDE is pleural changes rather than irregular opacities?

THE WITNESS: A. I wouldn't think so. Now, again, I'm not totally familiar, but my own impression about pleural plaques...

Q. Pleural thickening, pleural changes.

A. ..is that they are markers of asbestos exposure, are not indicators of current impairment, nor are predicters of impairment.

Q. And are not recognized as such by the advisory committee?

A. No, I think not. I think the advisory committee will certainly record a pleural plaque, a pleural calcification, pleural thickening, pleural fibrosis, pleural fusion, but it would be only as an asbestos effect, not as asbestosis and not as impairment.

A. (cont'd.) Now, if you pursued that question to me further, I think that we have on perhaps two occasions recommended an impairment rating because of the diffuseness and extent of the pleural thickening and pleural fibrosis that actually resulted in restriction and in impairment, when it was not felt to be due to asbestosis but just due to pleural change.

But that's very rare. Most of us look on this as a pretty innocent...as I said, as a marker, as evidence that they have been exposed at some time to the fiber.

Q. The concept which I understand comes out of Mount Sinai, of plueral asbestosis, is not one that finds favor in Ontario?

A. No, nor very many places.

Q. Can I just turn for a moment to the question of impairment, and again looking through the task force...where the task force report addressed the question of impairment?

Two things I drew from the task force report were, number one, that impairment was a reduction of lung function as compared with predicted or so-called normal values, whereas, according to the task force, disability rated the inability of an individual to perform his or her usual activities at work or at home or in leisure time.

The second thing I got out of all this discussion was that while the x-ray may be the chief tool in diagnosing asbestosis, it really was of little or no assistance in assessing impairment, and that what one looked at were lung function tests.

Am I correct on both of those propositions?

A. Both those assumptions are right.

Q. Do both of those propositions find favor within the deliberations of the advisory committee?

A. Yes. Again, I think the advisory committee looks at impairment, functional impairment of lung capacity

A. (cont'd.) based primarily...we take into effect history. I think we must never forget history and I don't want to, in fact, as a clinician, but the supporting evidence comes from the pulmonary function tests.

I think, again, that there is a poor correlation between roentological changes and impairment. That is particularly true in the coal workers and silicosis - maybe less so in the asbestosis. In other words, there is some suggestive relationship that the asbestosis patient with clear-cut parenchymal infiltration will have or is more likely to have some functional impairment, based on the tests

Q. Just one other matter which arises from the task force is a table which I'm sure you are familiar with, and I'll show it to you.

A. No, I've got it here. I can get it, I brought it with me.

Q. I'm looking at table four, which is on page seventy-four.

A. Yes.

Q. Which is headed Classification of Impairment.

I appreciate your evidence earlier that the advisory committee as such doesn't have specific criteria and so on, but can I ask you whether the kinds of criteria that we are looking at here would, in a fairly general way, represent, be indicative of the kind of approach the advisory committee might take?

A. I would think in a general way that's true. Yes.

Q. I mean, for example, class one - just looking at table four, class one - if you had the kind of pulmonary function test results that are indicated in class one, what kind of impairment rating would a claimant get?

A. Zero.

Q. Zero. And in class two?

A. Well, class two, he is showing a few changes and if they were associated with the other factors, you know, exposure and perhaps roentological changes, he would be probably in the ten or ten to twenty. One can go on up in stages of twenty to twenty-five percent, going through to the class five, being eighty percent plus.

But again, I hope you understand, it's hard to put exact figures on that and sometimes our figures are more dependent, again, on the serial examination of the individual. It's easier to come to the ten percent from nothing, or to go to the seventy-five percent plus, than it is sometimes to go from twenty-five to forty, or thirty or forty.

But if we do see progressive changes, radiologically, with prolonged exposure and then progressive decrement in pulmonary function, then we can increase the impairment rating ten percent, fifteen percent, twenty percent.

Q. Have you found from your experience on the advisory committee that there is often a disagreement amongst the members as to what percentage to affix to a particular claim?

A. Yes, there is often some disagreement. There is certainly often discussion about it. Usually by discussions back and forth and comparison and previous similar situations, sometimes seen the same day, we do come to a pretty uniform agreement as to what that particular claimant should receive or should be recommended to receive.

Q. Is there more disagreement or...I appreciate your last answer, but is there more cause for divergence, disagreement, on the question of percentage rating as opposed to entitlement versus nonentitlement?

A. That latter question meaning diagnosis?

Q. Yes.

A. Yes, I think that's true. I think we more commonly agree that the diagnosis is not evident, and have more discussion as to whether a person should be rated at X percent or Y percent.

Q. Are there nonetheless some cases where you can't agree?

A. Yes, I think there are some we do not agree.

Q. What happens in those cases? Does the majority prevail?

A. Yes, usually there is...discussion goes on, I'm not sure whether there is influence goes on, but I think the consensus prevails. It hasn't been a group that has taken a vote or recorded a vote, but usually consensus, and commonly uniformity of consensus as to the final decision.

In other words, very rarely does somebody recommend that they be put down as a dissenter and not agree.

Q. Would the difficulty of coming to a consensus and the initial disagreement, would that get reflected in the report that goes back to the WCB?

A. Well, I believe not. Maybe Dr. Stewart might have answered that, because I do not write the reports. They are written by the man who presents the patient, who presents the claimant, and he makes a recommendation. Now, I've seen a few of those and it is usually a statement of recommended impairment.

Q. You don't sign the report, I take it?

A. No.

Q. I take it no members of the committee sign it except the person who wrote it?

A. Except the person that wrote it.

Q. Do you see the report once it's prepared,

Q. (cont'd.) before it goes back to the Board?

A. No, we do not.

Q. You do not.

Can I ask you this, and I'm going to ask you for a frank answer to this, and please don't be modest about it...are there certain members of the committee who are more...whose opinion is more persuasive than others, on this particular issue of percentage rating and asbestosis claims? Are there certain members of the committee...and you may be one of them, or the only one of them...whose opinion is really more valued on this particular question?

A. That is hard to answer. I think there are some, certainly, opinions that are expressed more positively and we then would ask that person to say why he feels so strongly that it's up or down, and again try to meet him at his level or suggest that he fit into the level the other group decides on.

If you are asking me if I was at disagreement with the five other people present, would they follow me - I would say no. I might have more influence in certain situations, as might Dr. Muir, than two or three of the members, and somebody else might feel that they are, having seen the whole situation, being equally positive in their opinion.

So I think it's rarely than an individual influences in a major way any decision of impairment.

Q. If you had the kind of case where a couple of members of the committee felt the percentage rating should be forty percent, certain others felt it should be twenty percent, I don't know whether that's an unreal situation...

A. It would be unusual, yes.

Q. It would be?

A. Yes.

Q. You would be more often talking about disagreement...

A. In the ten percent range.

Q. The ten percent range?

A. Yes.

Q. In that kind of case would you tend to err on the high side? Or is there any tendency?

A. I would find it hard to say there was any tendency. You know, the problem is presented and the ratings are discussed, it's usually 'what do you think, what do you think, what do you think', and we sort of state the figures we believe ourselves would be a fair rating. I think again the majority would rule and hopefully the dissenters or the ones that don't agree would not be too concerned.

I guess, again, I'm...not necessarily a platitude.. but feeling as an outsider for a long time on the advisory committee, or at least as a person not doing examinations and so on, I have been impressed by the consideration that has been given to the claimant and the fairness of an award, rather than no award.

DR. MUSTARD: Can I take you to table four, and an even more fascinating more dilemma for me? It says under class one, "dyspnea - no impairment - the subject may or may not have dyspnea. If dyspnea is present, it is for nonrespiratory reasons".

Can you tell me how you could come to the conclusion that a person who is exposed to asbestos and has dyspnea, how you could say with any confidence that the dyspnea was for nonrespiratory reasons? I mean, how could you exclude there not being an asbestos effect?

THE WITNESS: Well, Dr. Mustard, I think that if one goes down the rest of that column and sees that every one of the studies is normal, one might say, particularly when one goes to the exercise studies and the oxygen consumption studies and

THE WITNESS: (cont'd.) they are normal, then I think it would be fair to say that the dyspnea was not even on an organic basis. It probably affects you, but it has to do with the lung.

DR. MUSTARD: Let's pursue the definition of normal. Some of my colleagues would argue that, for example, when your blood pressure is greater than a hundred and fifty over ninety, it is abnormal, and that means one fifty-one/ninety-one is abnormal, whereas one forty-nine/eighty-nine is not, in the blood pressure reading.

Now, I think we both realize that that's taking things a bit too far. So there are some would argue that all characteristics are distributed - that there is an average and there is a standard deviation - but there isn't such a thing as normal as a distributive function.

THE WITNESS: No, right.

DR. MUSTARD: And the thing that bothers me is under FEC the normal is marked as 'normal values revised within two standard deviations of the mean'.

If you began your function at the upper end of the standard deviation and you switched down because of the effect of the asbestos fiber, that would be a substantial change in your function, though it would lie within your normal range as defined here.

So that if I argue that for an individual it's the change in his function from what he previously had - which you may not have a record of - that's the more important thing, indeed you could have dyspnea and still be within your definition of normality, and which could be contributed by the asbestos fibers.

I have a very major problem with that classification on that table, for those reasons.

THE WITNESS: Right.

DR. MUSTARD: Do you see what I'm trying to get at?

THE WITNESS: Oh, I do, very clearly. I think it is a classification that he says on the top here, 'hopefully there will be some positive criticism about this and concern about it'.

But again, as you implied earlier, dyspnea is a subjective symptom. It's hard to measure it in asbolute objective terms, although some of these factors would exclude a likelihood of the complaint having a pulmonary basis for it.

Well, again, Dr. Ostigay, I think he was the chief instigator of this, implied that ideally...and I think you have implied this - that if you had a pre-employment set of pulmonary function studies and the person happened to be one hundred and thirty percent of the predicted normal and dropped down to ninety-five percent, which would still be considered normal, that person might have some impairment on the basis of that drop of forty or forty-five points.

Whether you would have dyspnea at that level is hard for me to say. He may notice that difference himself when he is doing particular physical activities of running or playing tennis or cross-country skiing, but I would doubt if that change, when he is at the ninety-five percent of predicted normal, would be disturbed by average labor or work.

I can't be sure of that, but that would be my impression.

DR. MUSTARD: It's very much like the problem with anemia, that we have attempted to define the malady but quite often we realize that it's the change in the amount of hemoglobin that's the more important determinant of change in function of the individual rather than the actual level, that is the association.

THE WITNESS: Yes.

DR. MUSTARD: So you agree that there is that dilemma in...

THE WITNESS: Occasionally it would come into the picture, but I don't see it as a common dilemma. I think it's a theoretical, more, or a possible one.

MR. LASKIN: Q. Apart from the initial claims that come to you in your role as consultant to the advisory committee, have you on occasion deliberated on cases which have gone on appeal through the Workmen's Compensation Board appeal structure?

THE WITNESS: A. In my other role?

Q. No, no. In your role with the advisory committee.

A. Oh. Yes, I think I can say yes, that we do have sent to us the odd claim which is up for appeal, for us to reconsider on the evidence that was available or the new evidence that has become available and resulted in the appeal.

So now and again...not very frequently, but we do see patients sent to us again by Dr. Dyer or Dr. Stewart, and whom a rating has already been given and some other factor has come into it - survivor for example, do we still feel that our previous rating was an accurate one. Is that...?

Q. That's the kind of case, yes.

A. Right.

Q. How does the new evidence get to you? In what form is it?

A. Well, I think almost like the original. We are given all information that is available to that file that might be a factor in making a rating, so that should there be a biopsy, for example, taken, or an autopsy performed, or a consultant in occupational disease or chest disease at another

A. (cont'd.) hospital submitting a report on which the basis of the appeal comes up, we would be sent that information for consideration.

Q. Do you ever recall instances where the advisory committee has changed its original view as a result of new evidence coming to it?

A. I'm not certain.

Q. Okay. That's fair.

I take it from your answer just a moment ago that you do, on occasion, get cases where there are survivor claims?

A. Yes.

Q. Are you asked to address your mind to the question as to whether a person with a partial rating for asbestosis, who dies by a cause of death other than asbestosis, whether in that situation a survivor should be entitled to benefits?

A. Yes, we are asked that occasionally.

Q. You are asked to deal with the question of causality?

A. Occasionally.

Q. You may recall when you...and you were sitting in the back and Dr. Ritchie was on the witness stand...I think Dr. Mustard asked Dr. Ritchie the question as to his view as to the relationship between asbestosis and the overall cardiovascular system...

A. Yes.

Q. ...and Dr. Ritchie was kind enough to defer to you, Dr. Gray, so can I ask you Dr. Mustard's question that he posed to Dr. Ritchie?

A. Yes, and Dr. Ritchie did, as I recall, answer this in part, and he has also, on one file that I am familiar with, made a report with respect to pneumoconiosis and its

A. (cont'd.) relationship to coronary or cardiovascular disease - primarily to do with the silicotics and/or the chronic bronchitic and emphysematous patients.

The effect has been considered usually in a negative relationship. In other words, the person with pneumoconiosis may well develop a cardiac disease, but it's to do with the right side of the heart, or so-called cor pulmonale or right-heart failure or disease, so that I think our opinion has been that the pneumoconioses per se are quite separate from coronary artery disease - if that's the main question - or with hypertension, or with other...I think Dr. Ritchie mentioned alcoholic cardiomyopathies and so on...they are unrelated in the sense of cause and effect.

DR. MUSTARD: Can I just butt in? For the sake of this discussion let us focus on the complications of coronary disease, which for the sake of definition are death either due to myocardial infarction or due to - which may be thrombotic in origin - or what we call sudden death in which we cannot show that thrombosis was a common factor in the diseased coronary arteries, but the underlying factor for both conditions is advanced disease of the coronary arteries which obviously may be due to factors other than chronic chest disease.

Now, one of the problems and one of the unknowns in this situation must be that you do not do coronary angiograms to define the degree of coronary artery disease in a subject with chronic chest disease, routinely, but there is evidence, I think, as brought out in Dr. Stewart's testimony, that if you look at the incidence of myocardial infarction in people with chronic chest disease, it's not any higher than in the general population.

But of course the problem is that you may have, within people who get chronic chest disease, a considerable

DR. MUSTARD: (cont'd.) population who do not get much underlying coronary artery disease and its narrowing of their arteries.

But now if you could identify the cohort that probably exists within people with chronic chest disease who have got advanced narrowing of the coronary arteries, if you could take those people out - which you obviously will be able to do during this decade with more skill than in the past - those people might be vulnerable, might they not, to chronic chest disease...and let me give you the reasons that I would like you to think about in terms of associations...certainly if you take a person who has reduced oxygen-carrying capacity with anemia, and you know they have advanced coronary artery disease, and you stress them, you can show abnormalities on electrocardiograms fairly quickly, which you can correct when you restore the oxygen-carrying capacity of the blood.

THE WITNESS: Yes.

DR. MUSTARD: Would it not be possible, then, that with chronic chest disease and impaired oxygenation of the blood - that degree of chest disease and with advanced narrowing of the coronary arteries, that you might be able to produce the same effects?

THE WITNESS: I think that's possible.

DR. MUSTARD: Now, with that possibility in mind we come to the enormous area of uncertainty in coronary artery disease, and I say this with in a sense a fair background of having to work in it, that we just really do not know what really causes the clinical complications of advanced coronary artery disease. We talk about the blood clot or the thrombus, but we do know that in the forty percent or so that die suddenly, that thrombosis is actually not present - that the cause of death there is due to some impairment of the circulation and

DR. MUSTARD: (cont'd.) perfusion of the myocardium and reduced oxygen supply, which probably causes the muscle of the heart, because it becomes ischemic, or the conduction system that carries the impulses that makes the heart beat normally, to become abnormal. And therefore, how can you exclude in this problem of chronic chest disease and people with advanced coronary artery disease, that impairment of oxygen supply as a result of the chronic chest disease might not indeed be a contributing factor to an ischemic event precipitating a fatal arrhythmia?

THE WITNESS: Dr. Mustard, I'm sure it's impossible to exclude it completely. My honest question or suggestion would be that in the person with pneumoconiosis, asbestosis, who had a low oxygen tension or low oxygen saturation, would probably be...almost certainly be...in a late stage of the disease, and I would think that that person would have extensive fibrosis and would already be at a rating of seventy-five percent, eighty percent or higher.

I don't think that the oxygen tension or saturation in the lower-rated pneumoconiosis patient would be significantly abnormal. In fact we, having done some exercise studies..and I'm not an expert on exercise physiology...but Dr. Roos has presented a number of people who have been in the fifty percent range who he has put on an exercise program and done ear oximetry, oxygen saturations, and had little or no fall - not a fall of five percent or greater, which would suggest that their oxygen-carrying capacity might not be severely impaired and even with exertion would not be much further impaired.

I think in view of that I would question that an arrhythmia or whatever the factor is to do with oxygen to heart muscle, or conductive mechanism or so on, would be important. But I do think in the more severely disabled one might have to

THE WITNESS: (cont'd.) seriously consider that, but it would be to me a seventy-five percent plus rating, off the top of my head.

DR. MUSTARD: Okay, so that we can agree that when there is major impairment there is the possibility?

THE WITNESS: Right.

DR. MUSTARD: And I guess we now come to the question of how well the person has been studied in the six or eight months before the...say a myocardial ischemic event...to be confident about where you stand - which raises the question, I guess, of how frequently is the rating or the assessment of these indivuals carried out. I think we discussed it, but is it monitored fairly frequently so that you wouldn't have a gap between the last time and a...

THE WITNESS: Not too long a gap. A yearly rating is common, and occasionally a six-month rating in asbestos claims is frequent.

DR. MUSTARD: Let's suppose a person has left a job and is no longer working, and doesn't want to come in to do that, and he was given a fifty percent rating four years and now dies of myocardial ischemia. In that...can that happen?

THE WITNESS: That's possible, but it would be unlikely to happen because I think most people who have a fifty percent rating are recalled. Now, they may refuse to come back, but they are on a list for recall because they are already being compensated, and therefore will be followed because, as we've talked about before, they may get worse with time, they know they may get worse, and the chance of them having more symptoms is likely, and I think they would probably want to come back and be considered for an increase in their rating.

But I think it's possible not to.

DR. MUSTARD: Let me make a hypothetical case then, of

DR. MUSTARD: (cont'd.) somebody who had a rating of disability of more than fifty percent, did drop dead suddenly and which was attributed to the myocardium. Would there be a possibility that you might give consideration to the chronic chest disease having contributed to that?

THE WITNESS: Well, I think so, and I think on occasions at the Compensation Board, in my other capacity, we have talked about this. I haven't passed opinions on it, but we have talked about this, and I think each one of those cases should be looked at individually, and I think my own feeling would be if it was a seventy-five percent plus rating and this happened, I would be a little on the leaning of accepting this rather than rejecting it.

But if it was fifty percent or lower, I would be very hesitant to consider it.

DR. MUSTARD: That's assuming that the fifty percent or lower carries with it the capacity to maintain oxygenation of blood with exercise?

THE WITNESS: Yes, right. And then...

DR. MUSTARD: Which is in the definition of the rating, I suppose.

THE WITNESS: ...and they haven't always been done, but we are doing more and more exercise studies, as I think has been implied.

MR. LASKIN: Q. Can I ask you this, because the Statute, the actual Workmen's Compensation Act, of course, in terms of these death benefit claims turns very much upon whether you have got a hundred percent rating or not, what kind of case are we looking at which would warrant a hundred percent rating?

THE WITNESS: A. In the asbestos...?

Q. In the asbestos field, the asbestosis field?

A. Well, I mean, you are excluding carcinoma and mesothelioma?

Q. Yes, just leave those for just a moment.

A. Right.

Q. What kind of case are we really looking at that warrants a hundred percent impairment from the advisory committee?

A. I think there are some figures in Barth, but you know I don't think there are very many such cases on our files that we are seeing regularly. We see a number at seventy-five, I know we have the odd one at one hundred percent, but they are really so disabled that usually they are seen at their home or they are not even coming to the advisory committee center for examination - they are too ill, too sick, too disabled to come.

Q. That's what I was going to get at. I mean, are you basically looking at people who are hospitalized, who are confined to bed?

A. Yes. The advisory committee members that do the travelling sometimes will see a claimant in his home for a followup, when he is unable to attend, and it may be that he is already on a hundred percent, but it is very likely he would be recommended for a raise to a hundred percent under those circumstances.

DR. MUSTARD: Can we ask you a question about the table four in the document, that you were looking at earlier, and there are five classes there. Would class three, 'moderate impairment, dyspnea working on level ground with person of the same age, or walking one flight of stairs', where would that get located in the impairment?

THE WITNESS: Well, I would think that would probably be in the twenty to forty or twenty to thirty-five probably, because there is a drop in FEC, as you see, of significant amounts, and the diffusing capacity is also down. So I think in that group...you see, the class two is for the ten

THE WITNESS: (cont'd.) to twenty, and then we jump from sort of twenty to forty, twenty to thirty-five, usually, in the class three, and this is just in round figures. It's very difficult...and this is a judgement, this is not a hard and fast rule and we don't have any actual figures that say if this is true or if that's true, then that equals so-and-such a percentage.

DR. MUSTARD: Now, if we move up to class four - 'dyspnea after walking more than three hundred and thirty feet at own pace on level ground'?

THE WITNESS: You are not a metric man.

DR. MUSTARD: I just transpose.

What would that be classed as?

THE WITNESS: Well, I think that person would be probably in the fifty to seventy. If I said the other one was twenty to forty or forty-five, this has got to be forty-five to seventy.

DR. MUSTARD: Now, that means, I think, if I interpret your answers correctly, that in a sense the impairment is really looking at the capacity of a lung to maintain function then, and that's really what you are looking at?

THE WITNESS: We are looking at...I think that's right, functional lung impairment.

DR. MUSTARD: But when I go up and read the dyspnea, you get into disability in a sense, which is interesting, and the table, to me, brings this out, does it not, because how would you feel...I know how I'd feel if my degree of impairment was such that I had trouble climbing a flight of stairs? As a disability would you not consider that fairly significant?

THE WITNESS: Yes, but I think fifty percent plus is fairly significant.

DR. MUSTARD: But when you've got that twenty to forty on the impairment scale, I'm just trying to sort of get at

DR. MUSTARD: (cont'd.) this sort of story. As an individual, if I became impaired so I could no longer climb a flight of stairs...and I must say, Dr. Gray, having just had to move house and carry things up and down stairs, I have a great deal of sympathy for this patient...I wonder if this doesn't exemplify a bit of the difference between the disability aspect of the problem and the impairment dilemma.

THE WITNESS: Yes, I see what you mean. That's why that may vary. If this person symptomatically did have marked dyspnea and did have these high figures, he might well be at the fifty edge.

It's hard to put figures.

DR. DUPRE: Just to round out that table four, I take it that at class five you wouldn't necessarily qualify for a hundred? You would be somewhere between seventy and a hundred?

THE WITNESS: Yes, I think that's true. It might well be a hundred, but it might not necessarily be.

MR. LASKIN: Q. Can I ask you just one further question, perhaps, before the break, and again on this question of causality? When you have to deal with the situation with partial disability for asbestosis, cause of death other than asbestosis, what are you looking for to draw the connection between the two? How important or otherwise does asbestosis have to be? Can you put a little flesh on your own approach to causality?

THE WITNESS: A. Usually in the individual who dies of a right heart failure, the cor pulmonale, has significant and in fact severe impairment. They are usually already in the seventy-five percent range.

Q. You wouldn't get a cor pulmonale with somebody who is down in the fifty-or-lower percentage?

A. You might say never, but that's hard to say.

A. (cont'd.) But it would be very rare.

Q. Very rare?

A. Yes. Because even in the higher percentage, it's interesting how uncommon cor pulmonale is even in those who are severely impaired, and that might be said whether it's bronchitis and emphysema or asbestosis. But if it is present, then it's at a severe level of impairment.

Q. And in that circumstance, I take it, the committee has no difficulty in drawing the causal link?

A. Not at all.

Q. Is there any other cause of death that's as clear as cor pulmonale?

A. I think in those who are significantly disabled - again, fifty percent plus, seventy-five percent plus - let's say they develop pneumonia...and I don't mean a terminal pneumonia as Dr. Ritchie referred the other day to many patients, many people dying who have terminal bronchial pneumonia...I mean they have a real episode of pneumonia which requires hospitalization and treatment, the response for that person to treatment would be impaired or be less effective on the current methods of treatment because of the severe asbestosis, and if that person died and the cause of death was considered to be in part related to the pneumonia, I think there would again be no question that that would be raised to a hundred percent.

The other cause of death is just straight hypoxia or asphyxiation, you might say, just that they went into respiratory failure and have changes in their blood gases which result in the inability to survive.

DR. MUSTARD: Can I ask you to sort out for me how you would differentiate your pneumonias to terminal pneumonia? Let me give you two examples that come across my mind, that maybe you could clarify for me and sort me out a little bit.

DR. MUSTARD: (cont'd.) I am admitted to hospital for some other condition, which is unrelated to my chronic chest disease - let's say it's a carcinoma and it's placed...I don't want to get into it, but let's say it's a carcinoma of the pancreas or something like that - and I die, and I die with bronchial pneumonia and that's listed as the cause of death.

Now, I presume that would be a terminal pneumonia which you would not say that its relationship to the asbestosis was an important factor?

THE WITNESS: We would like to have some records from the hospital, hopefully indicating that there was no sign of this in the early admission and up until the last event, and I would say if that was only recognized as so-called terminal bronchial pneomonia I think we wouldn't probably compensate if he was at a lower level.

DR. MUSTARD: Let me take a simple thing. Let's suppose you come in for a hernia operation, which is not quite as complicating, and let's suppose that the operation gets into difficulties, etc., and you die with a terminal bronchial pneumonia...and you've got asbestosis. How would you handle that?

THE WITNESS: Well..and would you say the rating?

DR. MUSTARD: The rating is forty.

THE WITNESS: Oh. I was hoping you would say ten.

MR. LASKIN: We only get hard cases here, Dr. Gray.

THE WITNESS: Well, that would be more difficult to deal with. My first impression would be that this was not really because the man had pneumoconiosis, because I would think at thirty percent, forty percent, probably even fifty percent, the usual pneumonia that is diagnosed in hospital, it might be a hospital-type pneomonias which are more difficult to treat sometimes than the ones that come in off the street, but recognized, should be treated successfully at that level, I think,

THE WITNESS: (cont'd.) of pneomoconiosis involvement. In other words, we often...this is straying a bit... but people who have thirty percent and forty percent impairment from pneumoconiosis will carry out major surgery without much concern - in fact, even will do some lung surgery of limited type in those people because we think they have sufficient reserves to go through that procedure.

So I think if that person developed a terminal bronchial pneumonia, I would doubt it was related to the pneumoconiosis directly, although it may be that he can't handle the pneumonia quite as well, although I that would be again one that would come up for consideration, but my personal bias would be against accepting it.

MR. LASKIN: Would this be a convenient time to take our morning recess?

DR. DUPRE: Yes, we'll take our normal break.

THE INQUIRY RECESSED

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THE INQUIRY RESUMED

MR. LASKIN: Q. Could I just come back for a moment to the topic we were discussing, Dr. Gray, just before the break, and I suppose what I'm trying to isolate is what approach the advisory committee may take to this question of causality, and there may be multiple disabling conditions that a particular claimant for compensation may have, and I suppose to translate it for, the profession I know a little more about law, and the same kind of issue comes up in the legal framework where sometimes judges or lawyers are called upon to assess why a particular person took a particular course of action, and there may be any one of a number of reasons. We would have to isolate whether a particular reason played any role in the ultimate

Q. (cont'd.) outcome, and coming back to the medical context, if you have a person who has not only asbestosis but other conditions, and dies, what question do you ask yourself in trying to determine the question of causality?

THE WITNESS: A. I think clearly we try to ask ourselves what role, if any, did the asbestosis play in that individual's final outcome.

In other words, I think we try to maybe compartmentalize it as much as we can, saying that asbestos disease or asbestosis played this percentage of a role, was it not related, and I would think more often than not we consider it to be not related and leave it at our previous figure.

Q. If you find that, as you say, you try to compartmentalize it and...are we talking about claimants who are alive now, or claimants who are...

A. Well, I guess maybe either way.

Q. Either way?

A. Either way. In other words, if we see a death claim, we again try to say...

Q. Okay. But if a person is alive and has multiple conditions, what you tend to do, then, I take it, is compartmentalize, attribute how much is due to asbestosis, how much may be due to something else and so on...isolate out?

A. Yes. We don't attempt to make a rating on anything else.

Q. Yes.

A. But we do attempt to make a rating on the asbestosis and its relationship to, again, a functional impairment of lung.

Q. Does the same thought process apply when you are dealing with a death claim?

A. Basically it does, yes.

Q. If you find, if your thought process leads you to the conclusion that asbestosis might have played a ten percent role in this particular person's death, what would you do?

A. Well, I think if we really felt that, we would probably say that. In other words, if it had been forty percent compensation and we felt that there was maybe a minor, but insignificant role as a result of death, we might say that that could be a small contributing, but not THE major factor, and would probably, if we were asked, say the death claim should not be allowed.

Q. So do I draw from that that in order to allow the death claim, the question you are ultimately asking yourself is 'did asbestosis...was asbestosis the major contributing cause'?

A. That's right.

Q. Not just any cause?

A. No.

Q. The major cause?

A. Yes, I think that's ...the major cause or in association with the other disease...if I can use the pneumonia we discussed a bit before...a person might be only forty or fifty percent, but I think we would consider a clear-cut pneomonia that died, that went on to death, as being fully benefited.

MR. LASKIN: Dr. Mustard?

DR. MUSTARD: I would like to take this a step further into a much broader domain, and the basis of my questions are three lines of evidence that exist in the literature about work and health effects on individuals.

The first is work by a man by the name of Brenner, at Johns Hopkins, showing that mortality rates climb with unemployment - that people who lose jobs seem to be more vulnerable, or something. It's a descriptive econometrics

DR. MUSTARD: (cont'd.) kind of approach, I suspect, that he is using, in terms of doing this, but it has become a very interesting subject, and there's the recent paper, which you may have seen, in the British journal Lancet, showing problems of unemployment and health effects on people.

Then there is a substantial body of knowledge that when people's income level changes, their vulnerability to health effects increases.

I guess really my question in the background of that knowledge is that when a person's condition changes so that their employment changes - their capacity to work or where they work changes - their vulnerability to doing other things - smoking a lot more, drinking a lot more or other things, seems to go along with this - and which may be a contributing factor to premature death. My dilemma comes up now in the problems of chronic chest disease and asbestosis. If in effect that diagnosis takes that person out of their normal capacity to earn and puts them into this more vulnerable population that seems to be apparent in the recent literature, have you ever had anybody come in and talk about the implications of this with you, in terms of trying to decide what to do about the, I guess the sociological impact, psychosociological impact on an individual, and the problems of premature death?

Obviously the asbestosis is not the direct cause of the death, but indeed what has happened to the individual as a consequence of it may indeed have set in motion a number of other factors which would not necessarily have occurred if that diagnosis hadn't occurred.

Have you had anybody talk to you about that, and its implications in terms of...

THE WITNESS: No, I could say quite definitely nobody has talked to us about that.

DR. DUPRE: Just in terms of that line, who has talked to you, in all your experience on ACOCD, have you ever been given oral or written instructions, guidelines or whatever, about what is expected of you when you are asked to look at the case of an asbestotic who has died?

THE WITNESS: No, we have not.

MR. LASKIN: Q. Do you ever get...can I...

THE WITNESS: A. Can I just say one thing? When I did join the group, it was, as was previously stated, that our position - and this was emphasized by Dr. Cowl, was to attempt to make a diagnosis and a rating.

But there was no...you are talking about guidelines written out or advice when I signed my first contract, no.

DR. DUPRE: An attempt to make a diagnosis and a rating, okay, that applies to your asbestotics. But what was conveyed to you, if anything, about what you are supposed to do when you are asked to review the death of an asbestotic?

THE WITNESS: Oh. I think then a letter would be written to someone - probably Dr. Vingilis, or it could have been Dr. Roerbeck - stating the problem and asking the advisory committee to express an opinion as to whether there was a cause-and-effect relationship.

DR. DUPRE: As to whether there was a cause-effect relationship.

THE WITNESS: I don't think they were ever asked did they want to change their rating, but just would they reconsider it and look at it and see whether they thought it was related.

DR. DUPRE: And it would be put that broadly? You haven't been asked...it doesn't suggest that you are being asked to determine the primary cause of death, whether asbestosis would have been the primary cause of death?

THE WITNESS: I think that was inferred, sir.

DR. DUPRE: I see.

MR. LASKIN: Q. Can I put another hypothetical-type situation to you along this line, and it's going to have to be general because my medical knowledge isn't enough to make it more specific, but the case I'm thinking of is the case of a worker who is on the job, may have an underlying medical condition, a medical problem, which is disabling, but nonetheless he is able to carry out the particular job that is required of him.

He contracts what would otherwise be quite a mild case of asbestosis, if he were a completely healthy person it might only warrant a ten percent rating. But because of his pre-existing other condition which is, for the sake of this hypothetical example not compensable, this otherwise mild case of asbestosis so interacts with the other condition that in fact the man is quite disabled.

What would the approach of the advisory committee to a percentage rating be in that kind of case?

THE WITNESS: A. I wish I could think of a good example that we've had of such a thing, but my immediate response is that we would still, as an advisory committee on pneumoconiosis, look at the pneumoconiosis, asbestosis, and its attributability to the degree of impairment and not feeling it was our responsibility to interrelate them.

Q. So that in my hypothetical example, he would still come up with ten to twenty percent?

A. As far as our Board was concerned, I'm not sure we would be qualified to say how much of the other and how much was this. We could, from the straight pulmonary point of view, yes.

Q. Thanks. That's helpful, Dr. Gray.

Just one or two final questions. You had a

Q. (cont'd.) dialogue some time ago with Dr. Mustard, and you were talking about asbestos fiber dust effects and so on. I just ask you from your own experience and your own long knowledge in this field whether you come to any view as to whether there is any value in removing an asbestos worker from further exposure?

A. We looked at this very carefully in the task force, and sought outside opinions, and subsequently have looked at literature, and I think have come to the conclusion that there is no evidence to indicate that there is an advantage.

Now having said that, I think one would take into account the particular situation at hand. If his was a man of forty-five who had shown clear-cut radiological progressive changes that put him into the asbestosis level, even though it would be a small percentage, I think we would very clearly advise him or recommend that he not work, although we could not say with certainty by so doing he would change the progression of the disease, but by having happened at that stage he might run a greater risk of continuing.

On the other hand, if he was sixty or sixty-two and had a three year period to go, and the dust levels in his particular environment had already been reduced to the so-called TLV or lower, his extra accumulation would probably not make much difference in what was going to happen anyway, and I would think we would not advise him, or the committee member examining would not say, you had better leave that job.

I think this is an area when again, it was suggested in the task force, it is open for research and for observation and followup, and it would be, of course, interesting to know in those people who have been advised to be removed, what happened to them compared to those who might have a similar level of trouble - although again we come into that

A. (cont'd.) susceptibility factor.

Q. Just a final question. From a number of things that we have read and have been presented to us, one of the things we seem to have come to learn is that the body of medical expertise in this particular area, occupational chest disease and so on, is quite small. Is that a fair statement?

A. I'm sorry. The body of exertise from reports? You mean from published papers or people?

Q. No, people.

A. Very definitely.

Q. What are we looking at in Ontario, in terms of that body of expertise, and how big or small is it?

A. It's a hard question to answer because I think, just as maybe again Dr. Ritchie implied, his expertise has come from seeing many cases, biopsies, autopsies, referred to him by the advisory committee and by the WCB in particular. I think the majority of us who have had an interest in occupational chest disease have gained any expertise we might have on the basis of experience, without having had formal basic training.

There is a change. There are now, that I know of, at least two programs in which people are being trained in occupational disease, which I'm sure the lung will be a component part of the training, but albeit maybe a small one because it is a small problem in total.

So I think, to maybe answer your question, there are very few people who have particular expertise in occupational lung diseases. There are a good many people who have expertise in lung disease and pulmonary disease, pulmonary function, pulmonary pathology, and I think with that group or that individual having an interest, and being put into such a thing as an advisory committee or some other group that is looking at

A. (cont'd.) occupational problems, he in time would develop an expertise.

I think it would be based mostly on experience.

Q. What I was going to ask you as a followup was, if the advisory committee thought that it ought to augment its members, or if one of its members was hired, where would you go to look for a new member?

A. That's a good question, and it has been discussed because there are two or three of us who are coming close to the time of retirement or replacement for other reasons, but at least for that reason, and there are, I think, again, if I can compare people like myself who have interest in pulmonary disease and at least a passing interest in occupational disease, I think with approaching them and seeing if they would be interested in sitting on the committee that was dealing with this, we might well pick up a knowledgeable person with a basic foundation, who could then become over a period of time an expert.

I think the people who are dealing with chest problems, already present in the Ministry of Health, in the department of labour, may be a primary source of individuals similar to what we have now. Not only do they have some experience, but they have some availability. They might have time to travel, and so on.

For example, have somebody like me, at the age of forty who is...not me at forty, but when I was forty...who was earning their living from practice and from teaching, and someone doing maybe some research - which I have not done - it may be very hard to persuade them to spend a certain amount of time, particularly if there was travelling involved, going to Timmins or going to someplace else to examine people.

So I think it would not be easy to find

A. (cont'd.) replacements, but I think there are people out there who would be interested and could fulfill the role, but they have to be pretty carefully selected.

Q. I said that was my last question, and having said that I'm going to do what lawyers always do and ask you one other question, and it really comes back again to the discussion about asbestosis and causes of death, and I forgot to ask you this question, but...and it relates to the British Columbia system to deal with that problem.

Are you familiar with the way in which British Columbia addresses this question of partial disability for asbestosis, and then subsequent death?

A. As it was reported in the Barth report, which said that anybody with lung or heart disease would be considered for death benefits. Am I interpreting that...?

Q. Let me read to you the actual provisions, and it's fairly short. It says:

> "Where a deceased worker was, at the date of his death, under the age of seventy years and suffering from an industrial disease of a type that impairs the capacity or function of the lungs, and where the death was caused by some ailment or impairment of the lungs or heart, of nontraumatic origin, it shall be conclusively presumed that the death resulted from the industrial disease".

Now, appreciating that there is a policy component to that provision, as well as arguably some medical component, do you have any reaction or comment on such a provision?

A. I have a negative reaction to it.

Q. You do?

A. Yes. I think it's partly based on what I said before about coronary artery disease and other similar disease.

A. (cont'd.) Other lung diseases could be present. A person might have fibrosing alveolitis, which of itself can cause death, and may have pneumoconiosis on top of it. It might be hard to decide without a biopsy.

Or they could have some other condition like sarcoid, which would be unrelated.

So I think I heard Dr. Ritchie's comment, and I must say that I was a little bit in favor - that that seemed to be an unreasonable conclusion to take in a broad concept. There may be individual situations where it should be considered, but not as a blanket regulation.

MR. LASKIN: Thank you very much, Dr. Gray. You have been helpful.

DR. DUPRE: Dr. Mustard?

DR. MUSTARD: Can I pursue a few questions with you before the Commissioners become very quiet?

In listening to the discussion, as I indicated earlier, it seems to me that ACOCD, a major function is to critically assess radiological evidence and critically assess pulmonary function tests, that you must spend a fair amount of your time looking at and considering that evidence.

THE WITNESS: Yes. Include the clinical story, too, because we pay real attention to that.

DR. MUSTARD: Yes, and the clinical story.

THE WITNESS: Yes.

DR. MUSTARD: There is evidence which I would think you are quite familiar with, that the problem of reading radiographs is a complicated one and that if you take trained radiographers and give them a series of x-rays to read blind, and give them repeatedly the same x-ray patterns to read blind, that within a single observer there is variation on how they will interpret an x-ray, and of course there is a variation among

DR. MUSTARD: (cont'd.) observers.

THE WITNESS: Yes.

DR. MUSTARD: Since radiographic evidence is important here, have you carried out any testing about observer reliability in terms of things you are trying to measure in the radiographs in this field, and the variation among observers, and then build that in to the sort of procedures that you use?

If it hasn't been done here, has it been done in any jurisdiction trying to do this complicated task?

THE WITNESS: I think it has been, and as I recollect Dr. Cowl took a number of x-rays to another center and had them interpreted to see whether they corresponded with the interpretation of the Ontario group.

Has that been brought up before at all?

DR. MUSTARD: No, I'm not aware of this having been brought up.

THE WITNESS: Was it...yes.

DR. DYER: Dr. Vingilis.

DR. MUSTARD: I wasn't here for that.

THE WITNESS: Yes, that has been done. When I was with the Royal Commission - this is silicosis, not asbestosis - a series of films, some normal, some abnormal, different stages, were taken to Montreal and had three experts - Gilson from England, Weil and Morgan...I think it was Morgan.. interpret these in the light of the ILO classification, which was then compared to the Ontario classification to see whether there was or was not any similarity, and as you pointed out, there was a fair amount of inter-reader differences. I mean the relation of Dr. Gilson's report to Dr. Weil's report was at variance. There was some correlation overall with the Ontario coding, but again, not a narrow line. There was a fair, wide spread.

THE WITNESS: (cont'd.) But I think what you are saying and what I'm saying right now is that those were isolated x-rays or radiographs, at different stages in time, whereas the advisory committee has the advantage of seeing films in sequence - which I think the error then becomes less. I wouldn't say it was zero, but it's a more likely chance of being accurate on film B if you have B minus one, B minus two, B minus three, B minus four to look at as well.

In other words, you can see sometimes changes which at one point in time may be questionable, but the next time are more clear cut and the next time are very definite, and I think in the report that Mr. Laskin read from the task force, it said persistent radiological densities, which I think is important because every now and again we'll see something pretty normal and suddenly a blowup of changes, which we then question - could that rapid change or sudden change be due to asbestos exposure, or is it due to some other process.

Most of us would prefer to defer judgement on that until we saw the same thing six months later or a year later, or there was some investigation in the meantime to consider other possible diagnoses, or persist with the fact that asbestosis was the sole factor.

DR. MUSTARD: But you have never hired an epidemiologist to take the members of ACOCD and test you in terms of the points that you just have made, in terms of your own consistency of observations on x-rays...

THE WITNESS: No, no.

DR. MUSTARD: ...and the consistency among you, and also to look at your consistency when you have a series of radiographs?

THE WITNESS: No, we have never had anybody assess that.

DR. MUSTARD: And you don't know of any jurisdiction that has actually done that to a group of observers trying to do this? I realize taking it and having another group look at it in terms of classification is one thing, but simply testing your own reliability can be done and I take it that that has not been done here and I was interested if it has been done in any other...

THE WITNESS: I have a feeling that Liddell reported...or Liddell from Montreal, one time...on repeated examinations of sequence of films to see if they corresponded, but I'm not positive.

DR. MUSTARD: Of course all laboratory tests have the same error capability and observer variation.

THE WITNESS: Yes.

DR. MUSTARD: Have the pulmonary function tests at any time ever been subjected to the same kind of scrutiny?

THE WITNESS: No, they haven't.

DR. MUSTARD: The next questioning area is one which with your experience in chest disease you will know a great deal about, but I believe it's true that with the asbestos fiber story there is some indication that it activates the part of the immunological system involving complement, that it can activate, in experimental circumstances anyway, that pathway.

THE WITNESS: I've heard that, yes.

DR. MUSTARD: I'm more interested in, in terms of allergic chest disease and asbestos exposure, do you ever identify any relationships at all that if you get asbestos exposure your allergic chest disease condition, if you have it, can be made worse, or is a precipitating factor in it?

THE WITNESS: Not to my knowledge. If you are talking about allergic chest disease as being asthma, for example, or extrinsic allergic alveolitis, I would say that in

THE WITNESS: (cont'd.) my experience that has not been evidence, and I think in the pathological experience, I don't think the pathologists have ever come to the point of saying that the changes fitted the typical extrinsic allergic alveolitis, but I can't be certain. Maybe you are more aware of that.

DR. MUSTARD: I was wondering if you get someone who has...that you reasonably believe is susceptible to allergic chest disease, as opposed to asbestos fibers, is there any evidence about what kind of reaction they get as opposed to a person with the same kind of susceptibility but not exposed to asbestos fibers?

THE WITNESS: I think it's not correlated, although some people feel that susceptibility to the effects of asbestos may be related to the presence of an abnormality of pulmonary function prior to employment.

In other words, there's some people who would say that if you don't have normal pulmonary function studies you shouldn't be employed, just like they say in the silicosis area - and maybe asbestos, too, but I'm not sure - that if there is an abnormal chest x-ray, that person will not be given a miner's certificate.

So I think the susceptibility factor may be a slight suggestion that there is some relationship. But I don't know of any actual number of people we have seen. I don't think we have seen a large number or any significant number that have had asthma and asbestosis, or have had other suggested hypersensitivity reactions.

DR. MUSTARD: Which brings me to my final question. As a physician, you see the cases that are referred to you.

THE WITNESS: Right.

DR. MUSTARD: And the Compensation Board will see

DR. MUSTARD: (cont'd.) the cases that are referred to it. In other words, the disease you are seeing is the disease, how much the individual makes identification and comes to see you?

THE WITNESS: Mmm-hmm.

DR. MUSTARD: Are you aware of any attempts to survey populations and find out what the nature is or the incidence of the problem is in an exposed population as opposed to the population that refers itself to see you? A classic example of this that I'm very familiar with is rheumatoid arthritis, in which if you take the incidence of rheumatoid arthritis from the people who go to see physicians, your estimate would be about fifty percent of what the true incidence, because if you surveyed a whole population in an area you would find there is a lot more rheumatoid arthritis by the classification criteria that are being used, but it doesn't bother to access itself to the health care system.

So in this particular condition that we are dealing with, do you have any feel? Is there any information about what the true incidence of pneumoconiosis, I guess, and asbestosis is in the population, as opposed to that which is actually referred to you?

THE WITNESS: No, I don't, but I believe that there were one or more studies that payed attention to pleural plaques, on mass surveys, as to the presence or absence of the plaques, with the suggestion that that might indicate an asbestos exposure. But I know of none that deliberately looked at the possibility of asbestosis. Is that what you are saying really, specifically?

DR. MUSTARD: Sure, because asbestos is our...

THE WITNESS: No. You see, a routine survey set of films, other diseases might very closely simulate asbestosis without any other basic history - just a matter of a survey.

THE WITNESS: (cont'd.) I think one would be hard put to say that that was due to asbestosis and not to some other process, because they are so similar. Whereas if you do see pleural plaques or calcification, then there is a high likelihood that that does apply an asbestos fiber effect because there are very few other conditions that have been reported in any number.

DR. MUSTARD: In your experience in this field, in the asbestos field, do you have any feeling for what portion of the work force exposed to asbestos fibers has actually come down with chronic chest disease?

THE WITNESS: No, I don't.

DR. MUSTARD: Do you know anybody who has tried to obtain that information within the Workmen's Compensation Board?

THE WITNESS: Not within the Board, no. Not that I know of.

DR. DUPRE: Have we got a batting order?

Miss Jolley?

MISS JOLLEY: I just have one question, Dr. Gray.

CROSS-EXAMINATION BY MISS JOLLEY

Q. That is, the benefit of the doubt is a principle at the Workmen's Compensation Board, and indeed the appendix A which is part of the manual there suggests that benefit of the doubt is applied at all levels of decision making at the Board, although there is no statutory authority for this.

I wonder, in the ACOCD, if benefit of the doubt is in fact considered? Is that a policy within the committee?

A. I would think it is not a policy.

Q. It is not a policy?

A. We have tried to come to a very definite yes or no.

Q. Right. That leads me to a question, then, about

Q. (cont'd.) if there is a dissenting opinion within, or two physicians who are dissenters, for example, who suggest that the rating ought to be higher, who then come to a majority view, would it not be helpful in terms of benefit of the doubt at the decision-making point of either Dr. Stewart or perhaps the adjudicator to indicate that to the Board, so that that kind of benefit is given?

A. I think that I gather occasionally a comment has been made in the report that there has been some discussion with respect to the rating or with respect to the diagnosis, and I suppose that applies - that there has been somebody who hasn't just fully agreed with that opinion, and that might come for consideration to the Board medical officer or the claims adjudicator.

You know, again, we've come to feel that there is a majority or there is a consensus, and usually we have accepted that at the Board and that has been part of the report.

I have a recollection of the odd one where there was some real doubt, and it was suggested that the man be seen at an earlier stage than he would have been otherwise. Instead of having a two year appointment, he was given a one year appointment or he was given a six-month appointment, because there might have been some doubt about change and therefore it would be wise to look at him again, and maybe a little earlier than usual.

MISS JOLLEY: I think that's all my questions, thank you.

DR. DUPRE: Mr. McCombie?

MR. McCOMBIE: Thank you.

CROSS-EXAMINATION BY MR. McCOMBIE

Q. Dr. Gray, I have a few followup questions to

Q. (cont'd.) some of the questions that were asked of you this morning, and in particular Mr. Laskin was asking you about the situation where there is a pre-existing condition, and my understanding of your answer to that was that you would attempt as best you could to single out the asbestos-related portion of the disability and attach a percentage to that. Is that correct?

A. I think that's basically, we feel, our function.

Q. Now, in doing so, would you, in your report to the board would you indicate that there was, let's say, a ten percent disability or impairment due to asbestosis, and there are other factors such as the following, and then list them? Would you do that in your report, or would you ignore the other factors?

A. The other factors would not be ignored, because in the report that is written there is a history, and that might include rheumatoid arthritis or it might include peptic ulcer or hypertension or angina or so on, so those factors would be noted and recorded. But in the recommendations I do not think that they would be listed.

Q. I see.

A. If they were new findings, they might even be transmitted not only to the board, but to the family physician. I mean, occasionally if things do turn up at the advisory committee, of which the claimant was unaware, and the examining physician sends his regular report to the board, but he also does let the physician know that something else was observed that might require attention. In other words, it isn't just forgotten. The man might not see the family physician for six months, which would be a delay in treatment time and diagnosis of something different.

Q. Do you know if, through your own experience or anything that you may have heard from the ACOCD, is anyone on that committee aware of the Board's policies on pre-existing conditions?

A. I'm sorry. Like what?

Q. If the Board has a policy on assessment where there is a pre-existing condition, and I'm wondering if the ACOCD has ever seen that policy or heard of that policy, or whether there has ever been any talk of that within the advisory committee?

A. Well, as I don't seem to be aware of that, I would have to say no.

I maybe don't understand the pre-existing condition. You mean the disability that has already been compensable, or compensated?

Q. Well, essentially it involves a situation where, as Mr. Laskin said, there was a pre-existing condition, but such that it didn't impair the person's capacity to do work, and then there was something else that was on top of that, and the Board is supposed to take...there's various steps that are taken to take that into account. Professor Barth to some extent deals with it in his report. I'm not sure what he calls it. It has been called various things in the legal profession - the thin-skull theory, and the take-the-worker-as-you-find-him syndrome, and various other things.

A. Well, maybe I should say this, that we do get the information from the Board in some detail as to what is known about the claimant, and if happened to be that he had some other disability, that would have, certainly if the Board is aware of it, would be in the notes that we see. So...

Q. Just a brief question on the reassessment, and I think you indicated that they can run anywhere from every six months to one year, presumably longer if it was really minor.

A. Right.

Q. I'm just wondering if ever in a reassessment a percentage amount is ever lowered?

A. No.

Q. That never happens?

A. That never happens.

Q. Can I ask you just very briefly to describe what your role at the Workmen's Compensation Board is? I believe you indicated that you generally do not get involved in discussion of asbestos-related claims in your role as consultant at the WCB?

A. That's right.

Q. Is that you never get involved, or very rarely?

A. I would say never. Occasionally we have some discussion, but usually with the resulting endpoint being - let's send it back to the committee for the opinion.

The types of problems that I see at the Board that are referred to me by different consultants have to do more with occupational asthma or somebody that has chronic bronchitis and emphysema and is claiming because of dust effects, or extrinsic allergic alveolitis, or histoplasmosis, there's vanadium toxication, there's a whole series...and some of them have very interesting claims, but they do not ask me for opinions on the pneumoconiosis group.

Q. Okay. To get back for a minute to the ACOCD, another I guess fairly basic question that I was wondering about, does anyone else, other than the Compensation Board, refer cases to the ACOCD?

A. To my knowledge it all has to come through the Workmen's Compensation Board.

Q. So it would have to come through the Board? It couldn't be referred, say, by another physician or...?

A. Not directly, not directly to the ACOCD.

Q. To the best of your knowledge has the ACOCD ever considered or been requested to do anything other than the functions that we have learned about? In particular I'm thinking

Q. (cont'd.) of any kind of educational role as far as doing...writing up guidelines, for example, on reading of x-rays or diagnosing of asbestosis?

A. No. No, we have not been asked to do that.

Q. I guess the final question I have is...and I don't know if it's fair to ask you as you are sitting in a dual capacity...but strictly in your capacity on the ACOCD, I'm wondering how you would see that in relation to the WCB - that is, do you see it as an independent body, or do you see yourselves taking direction, quite apart from the obvious directions of diagnosing and rating, from the Compensation Board?

A. I can clearly say we feel quite independent, quite autonomous, and make our reports as we see fit as a committee meeting and passing judgement...passing an opinion might be better.

Q. If you could turn for a moment to the question of, I guess diagnosing cause of death, that was discussed this morning? As I understood your response to the questions, the committee would attempt to define as to whether or not the asbestos-related disease was a major cause of death in considering whether to allow entitlement?

A. Yes, whether it was a major cause or whether it was a complication because of the asbestosis, yes.

Q. So in other words, just to get this perfectly straight in my own mind, if there was...and again my medical knowledge is somewhat scanty...but say there were five contributing causes to a death and one of those was asbestosis and the other four were unrelated and were not secondary to the asbestosis, that would probably...and given the fact they would all be equal in weight...that kind of case would probably not qualify as far as the committee would be concerned?

A. I think you are saying they are equal, so that might be twenty percent asbestosis. I would think that would not qualify.

Q. Would that be the case even if without that twenty percent there wouldn't have been a death, at least at that time? I'm not sure if I'm medically a little off the wall here, but...

A. I'm just sure what you mean, Mr. McCombie.

Q. Well, the analogy I remember being used once at a conference I was at was, the straw that broke the camel's back, and the straw may be small in and of itself, but it nevertheless was the final straw which caused the death. I'm wondering if we have a twenty percent straw if it was sort of the final thing that contributed to the death, whether that would be taken into account at all.

A. If the twenty percent were the asbestosis, I would say it would not be considered.

Q. Even if without that twenty percent there wouldn't have been a death?

A. I don't think one would have been able to say the asbestosis was the primary factor in causing death, so I would say no, that would not be considered as a death claim allowed because of asbestosis.

Q. We have heard quite a bit about the differences, real or otherwise, between measuring impairment and measuring disability, and I would just like to ask you, in your opinion, what do you measure when you are at the ACOCD, or what does the committee measure? Do they measure impairment or do they measure disability?

A. I think our role and our studies measure impairment.

Q. So that would be strict clinical impairment?

A. That's right - impairment of lung function.

MR. McCOMBIE: Okay. I think that's all the questions I have.

DR. DUPRE: Mr. Cauchi, you were not present for the direct examination.

MR. CAUCHI: No.

DR. DUPRE: So did you wish...you may pose some questions, but if it happens to cover material that is already covered, I'll so notify you, all right?

MR. CAUCHI: Sure. Thanks, Mr. Chairman.

Sorry for being late. Unfortunately, I have an old car.

CROSS-EXAMINATION BY MR. CAUCHI

Q. I want to ask Dr. Gray, could it be possible for a man with asbestosis to be more susceptible to the development of asthma?

A. No.

Q. No? That's straight.

The other one is, could it be possible for an asbestos worker to develop gastrointestinal cancer due to asbestosis, before a twenty year latency period?

A. That's not a role of the advisory committee. Are you talking about my general impression? See, the advisory committee does not deal with cancers. We deal with pneumoconiosis which is the asbestosis, silicosis and related disorders.

Q. Okay, I'll ask you as a medical man.

A. Well, there are...

Q. In your opinion.

A. There are guidelines...as you probably know, there are guidelines for this.

Q. I know there are guidelines.

A. I think, although those are not absolute, I think they...and again, I'm not familiar with the guidelines in detail because the advisory committee is not...

Q. The guideline says twenty years.

A. Yeah.

Q. But could it be possible for an asbestos worker, as a medical man in the profession, in your business...

A. I would have to answer that it's possible.

Q. It is possible?

A. But I think if you are talking about nineteen years, as Dr. Mustard and I were talking earlier about one year, one month, yes, that's a very arbitrary figure. But if you are talking about five years, I would say no.

Q. But it could develop before that twenty year period?

A. Let's say it's a possibility. I don't think we could say absolutely not, but...

MR. CAUCHI: Thanks, Doctor. That's all I wanted to say.

MR. EDWARDS: I have no questions, thank you, Mr. Chairman.

DR. DUPRE: Dr. Mustard?

DR. MUSTARD: One final question for you.

In your own experience in industrial chest disease, do you know if anybody has done a systematic study of those populations to determine whether their life expectancy overall is different from a nonexposed cohort?

THE WITNESS: I think the only group I know that has been looked at, I'm not sure how thoroughly and carefully it has been studied, have been the silicotics. The evidence has come out that the life expectancy of a man with silicosis either is equal to or very close to the expected life expectancy for a man...in other words, there is no change in life expectancy.

DR. MUSTARD: But you don't...you know of no study having been done in the field of the people exposed to asbestos?

THE WITNESS: I don't know of any. No.

DR. DUPRE: I have a few questions that arise out of the Barth study, and since you mentioned the Barth study in your dialogue with counsel, I take it that...

THE WITNESS: I have read it, yes.

DR. DUPRE: ...you have read it. Great.

THE WITNESS: Shall I get it out?

DR. DUPRE: Do you have a copy with you?

THE WITNESS: Yes, I have a copy.

DR. DUPRE: I would like to take you to some material that can be found beginning on page six, ten, and this is where Professor Barth presents some historical statistics and then has some either comments or speculation about what they mean.

Let me take you first of all to the paragraph that begins in the middle of page six, ten. He is examining here an historical table on claims allowed and initial ratings.

He first of all makes the descriptive statement:

"A significant number of claims in any given year will be denied initially, but rerated in some subsequent period. About thirty percent of the individuals evaluated by ACOCD who ultimately receive compensation were initially rated as not impaired, a zero rating".

Now, he then goes on and makes the following statement which I take it is again intended to be descriptive:

"Secondly, the Board tends to give absolutely low ratings initially. If one excludes the thirteen claims that involve total disability and those rated as zero, we are left with a hundred and twenty-two cases, twenty-six percent of which were initially rated at ten percent disability, and fifty-five percent from ten to twenty percent".

Now:

"These initial low ratings, along with those assessed at zero, may reflect either of two possibilities."

DR. DUPRE: (cont'd.) From this point on, of course, Professor Barth is speculating:

> "First, it may be that the ACOCD tends to be strict or be harsh in evaluating claims, particularly initially. Alternatively, it may be that persons with asbestosis are sufficiently well-informed that they seek benefits at an early stage of their impairment. It is not possible to sort out these two effects".

Do you have any comment on what Professor Barth has speculated about here? Or can you do any sorting out for us?

THE WITNESS: Well, sir, I would hesitate that we were harsh in evaluating claims, because I think we look at those impartially and with the evidence we have at hand. So I think any rejected claim would be on the basis of evidence that is supplied to us when we do our examination.

The second point I think does bear some significance, that it would appear, as you know...some of these statistics are rather confusing to me...but there is a period around 1975 or 1976 where there were an increased number of applicants, many of whom were not accepted. It seemed to me and I think we've talked about this, that there were possibly a couple of factors - that the people were better informed the possibility of compensation was present, the different programs were made available for those who had early disease, and I think, too, and I'm not sure maybe if I can say...I wish I could say, like Dr. Ritchie did, that Dr. Gray was in the audience...I wish I could say Dr. Ritchie was here...Dr. Dyer may know that maybe in 1955 or 1956 the change was made in the policy that a person could receive compensation and work. Earlier, this wasn't permitted, and a person would rather go on working at full salary and have a minor disability, whereas later they would take a chance on

THE WITNESS: (cont'd.) receiving a benefit, or expect to receive a benefit, and yet keep on with their same job.

But I'm not sure those are the answers, but looking at this, those possibilities occurred to me.

DR. DUPRE: Just dwelling on that possibility that it may be that persons with asbestosis are sufficiently well informed that they seek benefits at an early stage of their impairment, I take you to page six, twenty-two to look at table eleven?

THE WITNESS: Page twenty-two, yes.

DR. DUPRE: I'm sorry. Page six, twenty-two.

THE WITNESS: Six twenty-two, yes.

DR. DUPRE: Now, you referred in your earlier answers to the big bulge in the number of claims that took place after 1974, and of course what table eleven brings out when you are looking under the nonfatal denied claims, which would therefore be overwhelmingly asbestosis claims, the most noticeable bulge, of course, is Johns-Manville, which is singled out here.

THE WITNESS: Yes.

DR. DUPRE: One point that you might be able to enlighten me on would be the following: I, when I think of all kinds of questions that relate to Outreach programs, for example, I can see how one might construct the following hypothesis - that of course there was a tremendous amount of publicity, politics and so on that blossomed around that J-M plant around 1975, and that this did succeed in encouraging any of a number of individuals who have worked in that plant to come forward so that their possibility of having a valid claim could be examined.

Now, of course, on the other hand you've got all

DR. DUPRE: (cont'd.) kinds of other plants that have asbestos workers but did not wind up in that kind of political limelight.

Now, of course, it may well be that in fact the disease experience in those places is different. On the other hand, of course, it could be that there are any of a number of potential claimants who have not come forward and who might well be encouraged to come forward.

Now, I don't know if you can help me at all with this problem, but maybe if I put a specific question to you and if you, from your recollection, could be helpful, the specific question, I guess, would be this: If you think of asbestosis claims who initially received relatively high ratings...

THE WITNESS: Relatively high ratings?

DR. DUPRE: Relatively high ratings...would an appreciable portion of those perhaps be nonJohns-Manville employees?

THE WITNESS: I can't answer concretely, but I do not think so.

DR. DUPRE: Okay.

THE WITNESS: There was a graph in here someplace where they did show the number of other companies from which claims were accepted.

DR. DUPRE: Yes.

THE WITNESS: As you recall, most of them were single company-single claims. There were very few with multiple claims from one company, other than Johns-Manville.

DR. DUPRE: That's right. But the table there didn't show the initial impairment rating, and you see all I was speculating about when I was asking my question was this - if it were true, for example, that asbestos workers in firms that had not had the kind of publicity spotlight that J-M had are late in bringing claims forward, then one might expect, of course, that

DR. DUPRE: (cont'd.) claimants from such firms, when they finally got around to making claims, would of course have relatively high impairment, but I guess...

THE WITNESS: Well, I think maybe we do know that most of those companies must have been on surveillance programs, because the occupational health branch went to companies on a regular basis where there was expected or supposed to be a health risk.

DR. DUPRE: Right, right.

THE WITNESS: I don't think they might have missed somebody that might have got a forty percent rating or a thirty percent rating the first time.

DR. DUPRE: Thank you.

One other question arising out of the claim chapter, if you will permit me, Dr. Dyer...I'm sorry, Dr....page six, twelve. When we got to the bottom, Professor Barth writes:

> "Table seven reveals that only five claims have been initially assessed at twenty-five percent or higher, from 1977 through 1980, excluding the two total disability claims in this period.
> This is below the pattern for the earlier years shown here. Again, this could reflect a toughening by the ACOCD, or it could reflect the changing incidence and source of both the disease and claims in the province over this period".

He is speculating here, but I again would invite you to comment on the alternative hypotheses he has got there.

THE WITNESS: Again, merely from my own experience, there have not been very many who have been put initially at twenty-five percent who have been in the surveillance program. That would be, to me, rather unusual, or that they failed to file a claim when advised to, just by putting it off and putting

THE WITNESS: (cont'd.) it off. As you know, a number of people did claim and didn't follow through.

I don't understand why you think that would be a toughening of the policy. It would almost look like it was a loosening up of the policy to allow a twenty-five percent, whereas most initial claims are given ten percent because they are at an early stage of the disease, or perhaps give them nothing because it's not in evidence that they do have the disease.

So there may be a difference in the source, but I would have thought that the publicity was such and the surveillance program was such that I find it difficult to understand.

DR. DUPRE: Well, now, let me...could I just run a couple of possibilities past you, and tell me if they might hold any water.

One reason why one might explain what table seven shows, which is very few claims...well, which is, to put it dramatically, only one claim with an intial rating of forty percent or higher since 1976, whereas as you can tell from the table, you've got a whole bunch of those before. One reason that one might entertain for that would be that the coverage and the effectiveness of a surveillance program was greatly improved.

Now, another might be the following: That the very high exposure levels - let's say that one had in the fifties - were replaced by somewhat lower exposure levels, although still relatively high, in the sixties.

Now, I'm just running two possible hypotheses past you in terms of whether they might make any sense to you here or not.

THE WITNESS: I guess the surveillance programs are strictly voluntary. They are by no means...I'm not sure if Dr.

THE WITNESS: (cont'd.) Vingilis went into this, but I don't believe there was ever one hundred percent coverage. Some people may not have come at all, deliberately omitted coming, because they didn't want to be tagged with the disease, lose a job if something happened to them. I think that's a possibility.

The other thing, I suppose, is that a person just held back because as inferred, and I'm not positive of that, is that they thought well, they were going to maybe lose a job if they were going to be compensated, therefore why apply or why be considered, and yet had significant disease by the time they did apply, and that's maybe again to do with the surveillance or lack of it, because of the intent on the part of the claimant.

I can't be sure of that.

DR. MUSTARD: Have you ever tested yourselves by taking the package of information, say in 1972 or 1973, in which you gave a certain amount of ratings, and simply just have someone give you those cases and see how you would rate them now as opposed to how they were rated back then?

THE WITNESS: No. That would be a good...we haven't done that.

DR. MUSTARD: So I guess I could in a sense follow up your questions, Mr. Chairman. There isn't any built-in monitoring to make sure that your own criteria shift is changing the pattern by which you handle the impairment? To test that, you would have to pull data from the past and periodically check yourselves.

THE WITNESS: Yes.

DR. DUPRE: One last question arising out of that same chapter. If we go to page six, sixteen, Dr. Gray, at the bottom, Professor Barth is reflecting on the following:

"It is interesting", he says, "that there are so many claimants with initial ratings that were never

DR. DUPRE: (cont'd.) "modified by the Board, even on re-examination. Several of these no doubt were persons who died during the period under review, but others must have had conditions that were stabilized at the initial exmaination."

I guess from the very considerable experience you have had over the years on the ACOCD, I am just wondering about the extent to which your experience with individuals, you know, who are initially rated at ten percent and they stay there right through, I am wondering if this experience leads you to qualify the professional wisdom that asbestosis is a progressive disease?

THE WITNESS: I don't think I would change that view that in general it is a progressive disease. I think we have seen more do the opposite to that. It makes one wonder if the people with that rating were fortunate enough, by leaving the occupational exposure, did not progress, because as we said before we are not sure whether they will or will not.

But I think our experience would have stated that those who were maybe given zero and then ten percent would, over a period of time, if they remained exposed, go on up the scale to a degree. So that...did he say how many, or just...? No, just that some didn't.

I guess that's probably the natural history of disease again, isn't it, if one brings in reaction, susceptibility, the individual factor.

DR. DUPRE: Counsel?

MR. LASKIN: Q. I just have one final question, Dr. Gray. Really it's a followup on Linda Jolley's question to you in respect of the applicability or otherwise of the principle, at least known to our profession, of the benefit of reasonable doubt.

Indeed, when I look at the guidelines for compensating for asbestos-related diseases, one thing I do note is that the principle of the benefit of reasonable doubt seems

Q. (cont'd.) to be in all of the guidelines relating to the malignancies. It is not in the asbestosis guideline.

THE WITNESS: A. No.

Q. I guess what I wanted to zero in on would be the really hard cases, and I'm sure...I know our profession gets the really hard cases and I would assume that your profession gets the really difficult cases where there is room for some serious professional disagreement either on entitlement or on percentage, and would your committee not tend to err on the side of the claimant in those really difficult cases?

I'm asking for your frank and honest judgement on that.

A. Mr. Laskin, I think that we have tried to come to a conclusion which is yes or no, and that may be predicated on the fact that if there is that two vote against and the four in favor, or vice versa let's say when the person wasn't given the benefit, we are almost certain that patient will be seen again.

Now that may say, okay, we are losing a year and they are getting more disease and there should be something done in the meantime, but when it can't be clearly stated that they have disease, I think we have stuck to that decision based on our majority group.

Where there has been, I think I mentioned, any reasonable, any real doubt, it has been suggested that they may come back at an early stage so they can be reviewed to see if this is something that is happening a little more rapidly and progressively than we expect.

But I...it may be that on occasions our committee has used benefit of doubt, but it certainly has not been one of the discussions that we have resorted to on frequent occasions.

Q. And you always, I take it, feel that you've got the safety gap, because you can always...you know you are going to see that patient again, that claimant again?

A. Yes.

Q. I take it you take seriously that you've got to make a diagnosis of frank asbestosis as the guideline requires?

A. Well, we feel that's true because it has been sent to us for that opinion.

DR. DUPRE: Now, Dr. Gray, let me pose the same question that counsel posed to you, in the other domain of the ACOCD's activity, when it is being asked about the cause of death of an asbestotic.

Now, in this instance, of course, there will be no opportunity to examine the case again because the patient is dead. Now, would a principle of reasonable doubt begin to apply here, although there is, as I understand it there, no guideline whatsoever?

THE WITNESS: I hope I said before, I think I did, that those individuals are taken on an individual basis and are looked at and considered, and I think there would be more favorable consideration to giving a person benefit if there was a close-line decision to be made.

DR. DUPRE: This is in the instances where it's...

THE WITNESS: It's a survivor benefit.

DR. DUPRE: ...a survivor benefit?

THE WITNESS: Yes. I think that's, to us, a little different.

DR. DUPRE: Okay.

MR. LASKIN: Thank you very much, Dr. Gray. You have been extremely helpful to us and thank you for taking the time with us.

DR. DUPRE: May I, indeed, echo that sentiment, Dr.

DR. DUPRE: (cont'd.) Gray. Thank you very, very much indeed.

May I point out, counsel, that it is now quarter to one?

MR. LASKIN: I am well aware of that, Mr. Chairman.

DR. DUPRE: And that therefore my own instincts, which are never to let grass grow under our feet, is that we should reconvene at two rather than two-fifteen, at which time I understand Dr. Dyer will be kind enough to come forward?

MR. LASKIN: Yes, I believe so.

DR. DUPRE: Two o'clock is agreeable? May we then rise.

THE INQUIRY RECESSED

- - - - - - - - - - - - - -

THE INQUIRY RESUMED

DR. DUPRE: May we resume?

The Commission now warmly welcome Dr. Douglas Dyer, chest disease consultant for the medical services division of the Workmen's Compensation Board.

Miss Kahn, would you swear Dr. Dyer in, please?

DR. DOUGLAS WATSON DYER, SWORN

EXAMINATION-IN-CHIEF BY MR. LASKIN

Q. Now, Dr. Dyer, you are employed by the Workmen's Compensation Board?

A. Yes.

Q. In what capacity?

A. Medical specialist, chest disease.

Q. How long have you held that position?

A. Since the 12th of July, 1976.

Q. How long have you been employed by the

Q. (cont'd.) Workmen's Compensation Board?

A. Since the 29th of March, 1965.

Q. What positions did you hold between March of 1965 and 1976, when you assumed your present position?

A. I worked as...the terminology has changed during the time...the first job I had there was what was known as a treatment medical officer, and then it became a section medical officer, and subsequently a section medical advisor, and then a medical officer in the pensions department.

I was medical officer in the pensions department immediately prior to my assuming the present position.

Q. And when you assumed your present position you went from the pensions department to the medical services division?

A. Yes.

Q. And...

A. No, they are all under the medical services division.

Q. Ah, I see.

A. Yes.

Q. So you have essentially been in the medical services division, by whatever name it has been...

A. Since my first employment at the Board, yes.

Q. Can you briefly tell us what your educational background and professional qualifications are?

A. Graduated University of Toronto faculty of medicine in 1947, internship and residency in Hamilton, at the Hamilton General Hospital, from 1947 to 1949, in partnership practice in Hamilton for two years until 1951, in 1951 I moved to Owen Sound and opened my own practice there. While in my practice up there I did a considerable amount of occupational work in that I had a contract with the Bell Telephone Company of Canada,

A. (cont'd.) the Ontario Hydro. I was also medical examiner for the region for the Department of Transport - that is, the medical examination required for private pilot...in fact all pilot's licences in the area.

Q. All right. The particular area that I would like to cover with you in your evidence is the Outreach program of the Workmen's Compensation Board, and I would like to cover that program with you generally and I would also like to discuss with you in particular your involvement with the gas mask workers in Ontario.

So can we start with the program generally, and first of all, may I take it that you are familiar with the program and indeed had been involved with it from its outset?

A. From its inception. It was set up following a board minute dated the 12th of October, 1976.

Q. What precipitated the establishment of this program?

A. I would presume that it was the allowance of... or the approval by the Board of the guidelines for gastrointestinal cancer.

Q. How did that approval link itself to the establishment of an Outreach program?

A. It was felt by the Board that perhaps we should visit numerous employers who used asbestos in their manufacturing process, to make them aware of the guidelines for lung cancer, mesothelioma and gastrointestinal cancer.

Q. So that I take it even though the recognition of gastrointestinal cancer is compensable, was the triggering event, the purpose of the program, I take it, went beyond just that guideline?

A. Yes, yes.

Q. Did you, in October of 1976, receive some specific

Q. (cont'd.) directive from the Board as to what the program was to consist of and what the objective of the program was?

A. No, I did not. I was just advised I was to accompany the claims person on the trip.

Q. Was there a team set up to operate this program?

A. Yes, there was.

Q. Who were the persons who were involved on the team - not their names, but their positions? Or both, if you can give them.

A. The supervisor or co-ordinator of the industrial disease and dependents section, and myself.

Names?

Q. Two persons, then?

A. Yes. There were two people on the team.

Q. Who was the person besides yourself?

A. The first person that I worked with was Larry Kerr. I think we also, on more than one occasion, had sort of as we broke in a new member of the team, there would be two claims adjudicators go out and make a visit. Ray Ranta attended some of them, Bob Blaymires went on some, and Jim McKitterick went on some.

Q. From the viewpoint of this team, what did you envisage that you were trying to do?

A. When we would visit a company, we would speak to one of the senior officials, plant manager, member of personnel, and have a general discussion about the problems of asbestos-related disease, with particular interest to the malignancies. We would present to them copies of the guidelines and ask if they would search their personnel files to determine whether or not any members of the organization, or past members of the organization, had evidence of having had any of the three diseases, or died from any of the three diseases.

A. (cont'd.) We assumed that most of the companies had some form of health insurance, and in order for them to receive benefits under this health insurance, a medical certificate, cause of death, would have been in the company's personnel files.

Q. The companies that you visited, at least according to Professor Barth, were, initially in any event, the ninety-nine companies considered as...at least in the list provided by the occupational health branch of the then-Ministry of Health? Look at page seven point three of Professor Barth.

A. Seven point...the initial list provided by the Ministry of Health did contain ninety-nine companies. However, we reviewed the list and determined that certain companies were not in existence, certain companies were no longer using asbestos, and we pared the list down to thirty-two companies that were considered to have, still, workmen in significant exposure.

Q. Then there is also reference made here to some contact with the work force, either through the Ontario Federation of Labour or through unions. Did your team have some contact with the work force, directly?

A. Yes, we did.

Q. How did you do that?

A. Originally a letter went to Mr. Waddell of the Ontario Federation of Labour, explaining the details of our program. As well, when we visited a company we determined from management whether or not a union was involved in the company, and when we returned to Toronto we would contact the union and ask if they wished to have us visit them.

Q. What kind of response did you get from the unions?

A. On one or two occasions only did we set up visits with the unions.

Q. What happened in the other instances? There was

Q. (cont'd.) no show of interest?

A. Either a no-show of interest or circumstances beyond our control and beyond perhaps the union's control. We were unable to set up a meeting time.

This particularly was applicable to the Loggers International Union 95.

Q. That's the Heat, Frost and Asbestos Workers Union?

A. Heat, Frost and...?

Q. Did they not have the....

A. I remember we did visit a union in Toronto, on Warden Avenue. Now, the name of that has just slipped me at the time.

Q. Just dealing with the Local 95, what was the specific problem that prevented you getting together with that local?

A. The manager or whathaveyou, whatever his title was, was most difficult to meet with, and then I understand that on one occasion he was hospitalized because of a cardiac condition.

Q. In any event, no meeting ultimately took place?

A. That's right. That's right, yes.

Q. So you had a couple of meetings, one or two, with unions. Was there any direct contact with the nonunionized work force?

A. No, there was not.

Q. In its initial stages, was there any contact with any part of the construction industry?

A. No, there was not.

Q. Were you looking to encourage claims, to come forward for asbestos-related disease, or were you simply hoping to make sure that everybody knew about your guidelines, or a little

Q. (cont'd.) bit of both?

A. I think it probably was a little bit of both.

Mind you, we ran into a little opposition from some of the companies in that they felt that why should they supply data to us that might lead to the setup of a claim against them, and this was particularly so in one of the larger international corporations.

Q. Can you tell us which one?

A. Raybestos Manhattan. In fact, at the meeting that we had in Peterborough, the medical direct, Dr. Lewinson, was present at our meeting in Peterborough...

Q. He is the overall...

A. The overall corporate medical director.

And at that time he absolutely refused to give Mr. Kerr or myself the data that we sought. He wrote a letter to Dr. McCracken subsequently to this, and the matter was resolved. They did supply us with the information.

Q. Can you just help me on this, because as I read the program in Professor Barth's work, what I thought was happening was that you were giving out information, but I didn't appreciate that you were seeking information back from the companies.

What kind of data were you asking the companies to provide to you?

A. The names of present members of the company, or former members of the company, that they knew had developed these diseases, or had died from those diseases.

Q. I see.

A. We asked them to search their personnel records.

Q. Did you ultimately...you ultimately got that information from Raybestos?

A. Yes.

Q. Did you get that information from the other companies that you visited?

A. Most of them we did.

Q. I take it you wouldn't really have any way of checking as to whether a company had provided you with all of the personnel who fit your request?

A. No, there was no way of checking back.

Q. What did you do with the information once you had it?

A. The claims adjudication division would then try and establish a confirmation of the cause of death through the Registrar General's office. We would then try to establish a contact with the patient or the worker, or his next of kin, asking them if they wish to have a claim set up.

Q. Okay. How many such contacts did you make, asking whether these particular persons wished a claim to be put forward?

A. I can't tell you the number of contacts that were made, but I do know that there were twenty-two claims that had been established.

Q. During what period of time?

A. Up until July of 1980.

Q. So from the beginning of the program in October, 1976, through to July of 1980...

A. Yes.

Q. ...twenty-two claims went forward and were accepted by the Board?

A. Twenty-two claims were set up. Of those twenty-two claims, nineteen were denied for entitlement. Two were allowed and one was withdrawn by the initial applicant.

Q. And these are all cancer claims?

A. All cancer claims.

Q. All survivor claims?

A. Not necessarily.

Q. Do you have any breakdown on that?

A. No, I do not.

Q. Just stepping back one stage, and you told me you don't know how many requests went forward, but have you got any ballpark sense for whether those persons...what percentage of persons you invited to come forward with a claim actually came forward?

A. It would be my impression that there were very few who actually did not want a claim set up.

Q. Did not?

A. Yes, who did not want a claim set up.

Q. Can you help me with why the very large number of, proportionally speaking, of claims denied, when I take it your initial request to bring a claim forward presumably was based on some evidence that there was some merit to the claim?

A. I would think as far as lung cancer was concerned, in those claims involving lung cancer, that a fair number of them were subsequently determined to be secondary lung cancer rather than primary lung cancer, which is covered under the Act.

Q. So if you have been an asbestos-exposed employee and you get lung cancer, but the lung cancer is not the primary tumor, there is some other malignancy which is the primary tumor, you haven't got a compensable case of lung cancer?

A. Yes, that is right.

Q. Even if you fit within the guidelines otherwise?

A. That is right.

Like, for example, there are certain areas of the body that a primary cancer develops, and then subsequently spreads to the lung.

DR. DUPRE: Dr. Mustard?

DR. MUSTARD: If you had cancer of the gastrointestinal tract and it spread to the lung, how would you handle that?

THE WITNESS: We would require at least a twenty year latency period, as in our guidelines.

DR. MUSTARD: Let us suppose the twenty year latency period is there, etc....or to make it more difficult, let us suppose that the cancer is removed and Dr. Ritchie examined it and you only have a seventeen year observation period of exposure, but he finds asbestos fibers with the cancer?

THE WITNESS: That would be dealt with on an individual basis, and if Dr. Ritchie found asbestos fibers in the tumor, I would think that it would have been allowed.

DR. MUSTARD: So it depends on where the secondary lung cancer comes from?

THE WITNESS: Yes.

DR. DUPRE: Can I just interject a question about, again, how the twenty-two claims were set up?

You said that you notified individuals who were involved, and as you put it, very few people did not want a claim set up.

Now, with respect to the individuals you notified, did you simply notify the survivors of every single individual that was reported to you by employers as having died from that particular disease, without first checking out anything about how long they had been employed with the company and so on?

THE WITNESS: That type of the...that part of the inquiry was handled by the claims adjudication branch, and the details of each I do not have available.

MR. LASKIN: Q. You didn't personally have access to the employers' files? You, I take it, were relying on the employer to give you the information you were requesting?

THE WITNESS: A. That is true.

DR. DUPRE: And was the information requested simply the name of the individual, hopefully his address, together with the cause of death? Or were you also requesting from the company how long that individual had been employed?

THE WITNESS: Initially we were only requesting the name and the diagnosis. And then subsequently the claims adjudication branch looked into the exposure.

DR. DUPRE: You mean subsequently the claims adjudication branch started to ask for that information, or is it that you just got the name and the cause of death from the employer and once that was in the claims adjudication branch, then they would do an investigation?

THE WITNESS: After the claim was set up, they would investigate it as they would any other claim for asbestosis, or asbestos-related disease.

DR. DUPRE: Oh, after the claim was set up?

Okay, so you see what I'm trying to get to, Dr. Dyer, is this - if I am understanding the sequence now, and that would certainly help to explain why so many claims that were set up wound up being denied, as I understand it what was going on was, on the basis of having the name and the cause of death, an individual would be, or the survivor would be notified and asked 'do you want to set up a claim'?

THE WITNESS: That is true.

DR. DUPRE: If that individual said, yes, I want to set up a claim, then the claim would be set up and only then would the claims adjudication branch get around to finding how long he had been employed?

THE WITNESS: That is true.

DR. DUPRE: Okay. So that certainly would help to put into perspective the large number of claims which were denied,

DR. DUPRE: (cont'd.) because hypothetically you could have had somebody who was only employed for six months.

THE WITNESS: That's right.

DR. DUPRE: Okay.

MR. LASKIN: Q. So did you then attempt to contact every name that was given to you by, or next of kin given to you by, the employer - initially?

THE WITNESS: A. The claims adjudication branch did, yes. I personally didn't attempt to contact these people.

Q. But as part of the team Outreach program, you would get a series of names back from the employer?

A. Yes.

Q. With a cause of death?

A. Yes.

Q. Having got all of those names, what did you next do? Did you try to contact everybody?

A. I think...we confirmed the cause of death through the Registrar General's office. That was the first attempt. And then from there we would get a lead as to where the person was living.

Q. And you would try to contact them?

A. And contact them after that.

Q. What kind of trace rate did you have on that?

A. Without looking at the individual files, that is data that I haven't got available.

Q. Can you ballpark it for us? I mean, were you able to trace down half the people, or...?

A. Oh, I would think it would be considerably more than half, yes.

Q. More than three-quarters?

A. I would think so, yes.

If you were to ask me if it was a hundred percent,

A. (cont'd.) that I couldn't say. I would...I personally would doubt that we were able to contact a hundred percent of them.

Q. So then, just following up on the answer you gave to the chairman, having...the claim having come forward and an investigation been done by the claims adjudicator, what you might have found in these nineteen cases is what? They didn't meet your...?

A. They didn't meet the requirements...

Q. Of the guidelines?

A. Of the guidelines, yes.

Or to have a claim allowed under the adjudication and the medical...the process...even the...what we commonly refer to as the catch-all phrase at the bottom of each of the guidelines.

They were dealt with no differently than any other claim submitted.

Q. Do you recall whether there were any mesothelioma claims within this twenty-two?

A. In that group, no.

Q. None?

A. None.

Q. Did the program get extended in its scope as it went forward in time?

A. When the Board adopted the guidelines for laryngeal cancer, it was...we were midway through the program, and in our preliminary remarks to the company we included, in addition to lung cancer, mesothelioma and gastrointestinal cancer, laryngeal cancer, and included in the package that we gave to the company the guidelines for laryngeal cancer.

Q. Did you go beyond the initial list of companies that you had visited?

Q. (cont'd.) I note from Professor Barth's page seven point four that the program appeared to be extended to the shipbuilding industry. Is that correct?

A. Following the...we are getting a little bit out of sequence here.

Q. Okay, I'm sorry. You tell it in your own sequence.

A. Yes. Following the...or let's put it this way...during the time that we were on the so-called Outreach program, then this gas mask mesothelioma problem developed in Ottawa.

Q. How did that develop?

A. Well, I would rather deal with that one separately in that I have a paper that I prepared to speak to the chief medical officers of all the compensation boards of Canada, in which I outlined the problems involved, and I would rather deal with that as a separate entity.

Q. That's fine.

A. However, may I go on to state that following the Ottawa gas mask mesothelioma, we then began to wonder whether or not there was any asbestos-related disease existing in the shipbuilding industry in view of the fact that at a number of centers in Ontario during the war, Corvettes, or mine sweepers, were manufactured, and then...so that is how we got into the shipbuilding end of it.

Q. I'm probably behind on this - Corvettes or mine sweepers - what's the relationship with asbestos?

A. In the shipbuilding industry, a lot of asbestos was used as a fire retardant and insulator. In fact it was blown into the hull at a very early stage, and at the bottom of Spadina Avenue there were some four hundred mine sweepers...there were no Corvettes built in Toronto...some four

A. (cont'd.) hundred mine sweepers that were actually built at the bottom of Spadina Avenue.

Q. What efforts, then, can you follow it chronologically, by all means, in your own way, but can you carry on and tell us what...how you...?

A. How we tackled this program? Well, we knew that ships were still being built by Collingwood Shipyards in Collingwood, we knew that Collingwood Shipyards had a division in Thunder Bay, so the first contact was made with the Collingwood Shipyards, and presented the program to them.

They supplied us with a list of the number of vessels that was produced, that were built. However, they were not able to supply us with much in the way of information that we were requesting - like, people who had developed the diseases that we were looking for.

We heard of the Toronto activity, during the war, and I, as a boy, remember them building Corvettes and going down and watching them throw the hot rivets. Then an attempt was made to find out some history of this, and we made several inquiries and finally the Archives of the Toronto Harbour Commission came up with the names of companies, the names of.. or the number of ships that were built, etc.

However, at this point we ran into a roadblock because none of the companies that were listed were any longer in business, with the exception of one - the Port Weller Shipbuilding were involved in some of the process, and we subsequently visited Port Weller Shipyards.

Q. So that you visited Collingwood and you visited...

A. Port Weller.

Q. Port Weller.

A. Yes.

Q. And those were essentially the two?

A. The two that we were able to contact, yes.

Q. Did you get any names out of them?

A. No, we did not.

Q. Was it because these companies just didn't have records?

A. I would think that is the reason, or the records didn't go back that far.

Q. I take it with the rest of the shipbuilding industry, such as it was in Ontario, you couldn't find any way to trace the information down?

A. No. It was a wartime business, and there was something like fifteen thousand people working at the bottom of Spadina Avenue in Toronto.

Q. Was there any other way in which you tried to publicize the program?

A. Not that I can recall.

Q. Then carrying on forward in time, what, if anything further, happened in respect of the program?

A. Recently we are looking into the next phase. We now have a list of companies that have not been visited, sort of an update of the original list, and that we consider still there might be considerable amount of exposure and I believe that the claims adjudication branch are now contacting or planning to contact those companies to arrange visits.

Q. This is still in the manufacturing side?

A. Yes.

Q. Are you still involved with the program?

A. As far as I know. I have never been replaced.

Q. As far as you know, it's still active?

A. Yes.

Q. Professor Barth makes the observation that the user side of the asbestos industry, and he refers specifically

Q. (cont'd.) to auto mechanics, brake linings and so on, haven't been part of the program?

A. No, they have not.

Q. Any particular reason for that?

A. I can't give a reason, no.

Q. Has it been considered by the Board, or by your team?

A. I do not think it has, no.

DR. DUPRE: Can I just get one thing straight? It was the workers engaged in the manufacture of brake linings who would be covered?

THE WITNESS: Oh, yes, they were. Yes.

DR. DUPRE: Right.

THE WITNESS: We visited most of the manufacturing companies.

DR. DUPRE: Okay. So it would only workers who were engaged in brake maintenance?

THE WITNESS: That's right. Or the installation, yes, like your Canadian Tire man, yes.

MR. LASKIN: Thank you for that.

MR. LASKIN: Q. The other observation of the group not covered is the very general group which Professor Barth says is incidentally exposed, but amongst those he includes the demolition industry...

THE WITNESS: A. They were not covered either.

Q. And of course the construction side generally, I take it, has not been...

A. No, it has not.

Q. Again, is there any explanation for that?

A. I would think that we would have hoped to cover most of the, you know, people in the construction end of it had we been able to get the program established with

A. (cont'd.) Local 95.

Q. The insulators and so on?

A. Yes, the insulators - insulators and laggers.

Q. That's been the main stumbling block. Have there been renewed efforts to try to get the program going with that local?

A. Over a period of months there were several, but recently, I can't tell you.

Q. From your experience, would you agree with Professor Barth's observation that this kind of program is not a terribly common program for a compensation agency?

A. I would think it's extremely rare where the compensation board go out and actively seek claims.

Q. I'm just wondering whether at the time you started the program you were aware of any other such programs in other jurisdictions?

A. No, we were not.

Q. Then you didn't really have any experience to draw from?

A. No, we did not.

Q. Just before we come to the gas mask workers, in the light of hindsight and your experience with the program, would you have done it any differently? I suppose first of all, would you have done it at all?

A. I think there must have been some benefit in that we have had two allowed claims as a result of it. Whether these claims would have come to us through other channels, one cannot say.

Q. Would you have done it any differently?

A. No, I don't think so.

DR. MUSTARD: In this whole discussion of these twenty-two, they were all cancer cases?

THE WITNESS: Yes.

DR. MUSTARD: No chronic chest disease turned up in this Outreach program? No asbestosis?

THE WITNESS: We primarily weren't looking for asbestosis. I think we were assuming that as most of the companies were being monitored by the Ministry of Labour, that we would have a handle on those people through the surveillance program.

DR. MUSTARD: Were all the people being monitored by the surveillance program? Did you ever check that out?

THE WITNESS: During the discussions with the companies, we did ask them, and I recall most of the companies were being visited by the Ministry of Labour.

DR. MUSTARD: And all the workers that would be exposed to asbestos fibers were being covered by the surveillance program?

THE WITNESS: They were offered the surveillance program. This is a voluntary...yes.

MR. LASKIN: Q. Do you recall whether the two allowed claims were living claims or survivor benefit claims?

THE WITNESS: A. Without reviewing the file, the individual files, I can't recall. I would suspect they were probably survivor benefit claims.

Q. Do you want to tell us about your involvement with the...

DR. DUPRE: Can I just sneak in a quick question before that?

On page seven, eight, Professor Barth, after discussing your program, notes in the last sentence that begins before the paragraph:

"Moreover, a very major publicity effort in the latter part of the seventies by the U.S. government, to

DR. DUPRE: (cont'd.) "identify asbestos-injured workers in federally-operated shipyards, was acknowledged to have met with failure, or at least very little response".

Did you become familiar with that program and did it have any... did its experience have any relevance to us?

THE WITNESS: No, I was not familiar with that program.

DR. DUPRE: You had never heard of it until you read about it in Barth?

THE WITNESS: That is true...or attended course epidemiology 101 last summer.

DR. DUPRE: Right.

MR. LASKIN: Q. Can you then tell us about your involvement with the gas mask assembly workers?

THE WITNESS: A. Yes. With your permission I will read and partly amend this paper that I presented to the annual meeting of the chief medical officers of the compensation boards of Canada, on the 14th of March of 1980.

Now, the reason for the amendment that I'm going to make, is that reference is made in this to certain claims, both that we dealt with and the department of pension...the pension commission of the department of veterans affairs...so as I read it, I will just delete these.

DR. DUPRE: Delete the names?

THE WITNESS: The names, yes.

DR. DUPRE: Yes, okay.

THE WITNESS: "On the 4th of May, 1978, an Ottawa physician wrote to the Minister of Health of Ontario, informing him of a patient who had died of abdominal mesothelioma. The employer was given as the National Research Council.

THE WITNESS: (cont'd.) "This letter was sent to the Minister of Labour and subsequently forwarded to the Workmen's Compensation Board.

On the 15th of June, 1978, a claim was established, and in the next month routine inquiries were carried out by the claims adjudication branch regarding the length and intensity of exposure to asbestos.

A summary of the hospital records was received by the Board on the 9th of August of 1978. Labour Canada, on the 15th of August, 1978, telephoned to the Workmen's Compensation Board that the National Research Council had never heard of the man, nor could more information be supplied - such as the unit number - and asked for more information to be supplied, such as the unit name and number and the name of the supervisors involved.

The original reporting physician was written and asked if he could supply this information, and could he give us the names of the next of kin.

The daughter wrote to us on the 6th of September, 1978, outlining the details of her father's employment, and named his supervisors.

She advised us that further information could be obtained from the Civilian Personnel Office in Ottawa.

By the end of September, we learned from the City of Ottawa, who was the man's last employer, that from 1964 until 1968, he was not exposed to asbestos.

On the 1st of November, 1978, a letter was received from the National Defence Headquarters advising us

THE WITNESS: (cont'd.) "that they destroy personnel files of all employees when they reached the age of seventy years. Therefore, they could not supply us with any information regarding his employment.

On the 8th of November of 1978, the Ottawa General Hospital advised us that an autopsy disclosed asbestosis of the lung and also a diagnosis of abdominal mesothelioma.

We were informed that the deceased worked for the federal government testing gas masks, and were asked if we could provide them with any information on the occupational exposure to asbestos.

Early in December, the claim was sent to our Ottawa district office, where a claims investigator carried out the usual investigation, visiting a next of kin for statements, work history, and to have waivers signed to obtain medical records.

He had a problem getting any information relative to this man's employment from the Department of National Defence. He was able to obtain the names of others who worked in the plant, and those people were also interviewed.

On the 11th of December, 1978, an article appeared in the Ottawa press stating that four persons from Ottawa have died of an asbestos-caused disease called mesothelioma, according to a Montreal professor. Dr. Allison McDonald, of the Department of epidemiology and health at McGill University, uncovered these cases in a study of mesotheliomas in Canada. She would not release any information prior to the publication of a copyright article

THE WITNESS: (cont'd.) "about mesothelioma to be published in the American Journal of Environmental Research.

This newspaper article was followed in the next few days by a number of accounts of people who had worked in the cannister assembly plant in Ottawa, and one article was accompanied by pictures.

On the 12th of December, 1978, the issue of identification of employees of the wartime defence plant was raised in the House of Commons. Several discussions were held in Toronto, at our headquarters, between the claims and the medical branches as to how exposure history could be confirmed.

Attempts were made to contact Dr. Allison McDonald in Montreal. We learned that she had moved to England to accept a post in the department of epidemiology and preventive medicine at St. Mary's Hospital medical school, Paddington, London, and as she had refused to release any information until after her article was published, we decided to attack the problem from other sources.

Almost in desperation I telephoned the noted Canadian historian, Colonel C.P. Stacy. He had written a history of the Canadian army from 1939 to 1945.

I explained our problem of locating any information or records of the gas mask plant that was operated by the Department of National Defence at the corners of Sussex and John Street in Ottawa. He could not recall researching this aspect of the war effort. He suggested that we contact a Mr. Glen Wright of the National Archives.

THE WITNESS: (cont'd.) "On the 2nd of February, 1979, I telephoned Mr. Wright and explained our problem. He returned my call within a few hours to inform me that his preliminary investigation revealed a rather bulky file containing drawings, lists, stores and some administrative detail on a cannister assembly plant. There was much more information on microfilm.

He suggested that we go to Ottawa and have a look at this information.

About this time, in a conversation with a friend who had an extensive collection of gas masks, I learned of the publication entitled The History of the Department of Munitions and Supply, by J. Kennedy. This was published by the King's Printer in 1950.

I asked our librarian to obtain this volume, and on the 6th of February, 1979, a meeting was held with a Labour Canada official from Ottawa.

They wanted to assure the Workmen's Compensation Board that we will receive every possible co-operation. In the absence of official employment records, they would accept affidavits or other information which the Workmen's Compensation Board deemed sufficient to confirm that a person was working in the plant.

We told the meeting that we would be going to Ottawa the following week to visit the Archives.

Accordingly, arrangements were made for the team co-ordinator of the industrail disease and dependents section - that is, Ray Ranta - and myself to make the trip.

A review of the press clippings revealed a newspaper article was published by the Ottawa Citizen on

THE WITNESS: (cont'd.) Wednesday, December 13th, and contained interviews with a number of former employees of the Ottawa gas mask plant.

They also published a photo taken in April of 1941, of the entire staff assembled in front of the plant. This picture will play an important part, as we shall see later.

Also, there were pictures of a Dr. Flood, who was the plant manager, and a former worker, a Mr. Aerial. (ph.)

I contacted Dr. Flood on the week of the 5th of February, and told him of our investigation. He agreed to meet us the following week when we would be in Ottawa.

I had been in contact with Dr. Henderson, the chief of respiralogy at the Ottawa General Hospital, regarding medical information, and learned of another case.

He advised me that one case was still alive and that she was currently a patient in hospital. Her case was to be presented at grand rounds at the hospital on Thursday, February 15th, and I was invited to attend.

On the morning of the 13th of February, the Globe and Mail stated that Workmen's Compensation officials were going to Ottawa to investigate the mesothelioma.

When we arrived in Ottawa, we were met by our investigator from the Ottawa office, and he stated that the press were already looking for us.

We then proceeded to the Archives, and met Mr. Wright. He had available five large boxes of files and a list of fifteen to twenty microfilm reels.

THE WITNESS: (cont'd.) These files were the complete files of the director of chemical warfare of the Canadian army during the years 1937 to 1947.

Mr. Ranta and I spent a day and a half reviewing these files and the microfilm.

Although we reveiwed a vast amount of material, very little information on the actual operation and set up of the Ottawa facilities was available.

We learned that a hundred and twenty-five thousand dollars was paid in wages to civilian employees in the years 1942 and 1943. We determined that crocidolite, or blue asbestos, was used.

There were a hundred and forty-five civilian employees in the plant, and about six army personnel.

A particular captain in the army was confirmed as one of the service personnel. It was later determined that he was the scientific officer mentioned in Dr. McDonald's paper.

We found a note that they produced and tested some eighty-eight thousand, eight hundred and twenty-four gas masks.

The container assembly plant at Sussex and John Street was operated by the director of chemical warfare of the Canadian army from 1938 until 1942.

It was developed from a branch of the National Research Council.

On the 1st of July, 1942, it was transferred to the inspection board of the United Kingdom and Canada, and it ceased operation on the 12th of October, 1945, when a hundred and forty-five civilian positions were cancelled.

The work was then taken over by the defence research council.

THE WITNESS: (cont'd.) "We learned that Dr. A.E. Flood, or Lieutenant-Colonel Flood, was a senior consultant in chemical warfare to the Canadian army. He was instrumental in setting up this plant. The asbestos pads for the cannisters were received from England originally, and later from Quebec.
These were inserted in the cannister by a piston-like pump, and some dust was produced in the process.
The newspaper article had quoted some employees as seeing asbestos shovelled into carts. This was not true, as it was the charcoal contained in the cannister that was handled in bulk. The asbestos came as a compressed pad in cartons.
We then visited Dr. Flood at his home in Rockcliff. He told us that he was a scientist and a chemist. He had been employed by the National Research Council, and in 1937 he was sent to Leyland, in Lancashire, England, to observe the operation of gas mask-producing plant, and he came back to Canada and set up the Canadian facility.
He was not concerned with the operation of the plant per se. That was left to the army personnel.
He mentioned a brigadier, who is now retired and living in Chester, Nova Scotia.
Dr. Flood stated that most of the civilians would not be exposed to asbestos to the same extent as the army personnel who were doing the actual testing.
He recalled an interesting item that in those days most people rolled their own cigarettes, and some of the more enterprising individuals included a plug of asbestos in the end to act as a filter.
This may have been the first filter-tipped cigarette.

THE WITNESS: (cont'd.) "He gave us the names of some people who were still living in Ottawa, and who were associated with the production end of the operation. After the search of the Archives, we contacted the medical advisors of the Canada Pension Commission. A Dr. McKee and Dr. Cohen told us they had recently rendered a favorable decision in a pension claim for a colonel who was one of the military personnel working in the container assembly plant."

And I might state that that colonel is the captain who was referred to, that we identified from searching the archives.

"His claim was for a mesothelioma. An attempt was made to obtain the information that was available to the Canada Pension Commission to allow them to make this favorable decision. However, this was unsuccessful.

We then contacted some of the former employees. We learned that there was considerable dust generated by the piston that forced the asbestos pads into the cannisters.

On February 15th, I attended grand rounds at the Ottawa General Hospital where the presentation of a case of mesothelioma in a seventy-nine year old woman, who had worked in the cannister plant during the war, was presented.

The pathological presentation of biopsy material showed a beautiful fiber of a similar state to that of blue asbestos.

On our return to Toronto, Mr. Ranta and I discussed this investigation. We felt that we were quite successful in that we were able to become familiar with the actual operations of the Ottawa wartime

THE WITNESS: (cont'd.) gas mask plant, we had two individuals who had developed mesothelioma identified in a picture that was published in the paper on the 13th of December.

We concluded that we had sufficient information to consider that the two people were employed in the operation, and that we considered them to be working in a very significant exposure to asbestos dust.

The hospital records were difficult to obtain because of the controversy accompanying these claims.

We were able to, with the help of legal counsel of the Ontario Hospital Association, get waivers signed by the executor of the estate and a letter from a lawyer handling the estate confirming the name of the executor.

We then had the pathological tissue forwarded to Dr. E.C. Ritchie, our consultant pathologist.

He confirmed the diagnosis as being mesothelioma in the two claims, and they were allowed and benefits paid on the 29th of March, 1979.

The additional claims set up as a result of investigation were subjected to local investigation and pathological review of tissue. These claims were also adjudicated.

This paper has been presented to illustrate the detailed investigation required to adjudicate claims presented to the Workmen's Compensation Board of Ontario involving exposure during wartime, 1939 to 1945, and the appearance of a compensable condition - namely mesothelioma, thirty-five to forty years later."

MR. LASKIN: Thank you very much, Dr. Dyer.

MR. LASKIN: Q. How many...was it then two claims that came forward?

THE WITNESS: A. Initially two, yes. And we have subsequently allowed one other one. So there have been a total of three claims allowed from the gas mask mesothelioma exposure.

DR. DUPRE: How does that compare with the McDonald statistics in the paper that was finally published?

THE WITNESS: I had Dr. McDonald's paper here...here it is.

She identified, in the Ottawa area, in her paper... I'm not sure what your tab number is...this was the paper in the Environmental Research, Volume seventeen, pages three forty to three forty-six.

But this, I know, was presented in her...

MR. LASKIN: What's the...just give us the title of the paper.

THE WITNESS: Mesothelioma after Crocidolite Expsoure during Gas Mask Manufacture.

MR. LASKIN: Yes, that's the paper.

THE WITNESS: Table two, she identifies in the Ottawa area two pleural mesotheliomas and one peritoneal mesothelioma.

She also identified two cancers of the bronchus, one cancer of the brain, one reticulosarcoma, one generalized carcinomatosis, five heart disease and three other causes, in the Ottawa area.

So it would appear that she has identified three mesotheliomas, and we have identified three. Whether they are the same three, I am not sure.

MR. LASKIN: Q. When you say you discovered that crocidolite was being used, did your discovery go so far as to indicate that it was crocidolite exclusively that was being used?

THE WITNESS: A. No, it did not.

However, I think that the Commission is aware of the studies that were done in the town in...I think it's Nottingham, in England...

Q. Nottingham, England.

A. ...where the Boots factory made civilian cannisters...or cannisters for civilian gas masks, and another company made the military ones.

The military ones contained crocidolite, the civilian ones contained chrysotile.

Q. Did you discover any evidence that any chrysotile was being used in the Canadian operation?

A. I was not able to determine this, because the pads were made in Quebec, and I think it was in Quebec, assembled, and then they came in in great, large cartons. Yes.

Whether they were one hundred percent crocidolite or one hundred...I know that they were not one hundred percent chrysotile.

Q. You do know there was crocidolite?

A. Yes.

Q. What we don't know...

A. I don't know the percentage, no.

Q. Fair enough.

MR. LASKIN: Okay, Dr. Dyer. Thank you very much for being so helpful with us and telling us that interesting story.

DR. DUPRE: No further questions?

MR. LASKIN: I have no further questions at this time.

DR. DUPRE: Batting order?

Miss Jolley?

CROSS-EXAMINATION BY MISS JOLLEY

Q. I have a couple of questions following your testimony.

In your Outreach, the description of your Outreach program, you indicated that the original ninety-nine companies that had been identified by the Ministry of Labour as using asbestos, ultimately you came out with thirty-two companies.

One of the criteria that you stated, I think, in your testimony was that certain companies were no longer using asbestos?

A. No longer using asbestos or were no longer in business.

Q. Right. The two criteria though?

A. Yes.

Q. Why would you select out companies who were no longer using asbestos when there is a clear latency period?

A. I can't answer that one.

Q. The other thing I wondered, you know, you mentioned that perhaps you couldn't think of doing anything differently.

The IAPA and some of the other safety associations that are connected with the Workmen's Compensation Board in fact do provide education to nonunion workers, etc. Would that not be a source of information to nonunionized workers, as well?

A. It is possible. However, there are a tremendous number of workers in Ontario who are not represented by even any of the associations, because I also have recently worked on a committee that dealt with the relationship between the Workmen's Compensation Board and the safety associations.

Q. Then what about the possibility of using fairly extensive newspaper advertising, or perhaps better still, TV or radio advertising?

A. This is possible, yes.

Q. The final question I just have about your story about the gas mask workers is, I don't understand why you wouldn't just write directly to Allison McDonald, who must clearly have had names.

I mean, I understand she made a reference, and I remember reading it in the press, that she didn't want to discuss her paper, but surely between...if you indicated the desire to compensate these victims, I think Dr. McDonald surely would have seen this as quite a different thing than pursuing it with the press.

A. We were not able to make contact with Dr. McDonald because of her move to England, and as well we learned from the...I think it was Dr. Henderson at the Ottawa Hospital, that he had endeavored to find out who she was referring to, but she did make no effort to co-operate with us.

Q. Now that the paper is actually published and you have indicated that you aren't sure that the three mesotheliomas that you have identified are the same three, would it not perhaps...have you not thought about going to her now?

A. I spoke to her when she was here, and she said she would be interested in the names that we had, and I said we would be interested in the names that she had, and because of confidentiality it was almost an impasse.

Q. Confidentiality?

DR. DUPRE: Because of confidentiality was almost what?

THE WITNESS: An impasse.

DR. DUPRE: Oh, an impasse.

MISS JOLLEY: Q. I don't understand. She is a physician and you are a physician. Why couldn't you...

THE WITNESS: A. Officially I don't think that we

A. (cont'd.) could release this information without the...a waiver from the next of kin, to her.

Q. Couldn't you pursue that?

I'm more concerned about her names coming to you to see that they are being compensated.

A. Supposing...

Q. I mean, you are getting names of people from companies...

A. ...we have three and she has three and they are not the same, that means that somewhere there are three more, is that not true?

Q. Right. Well, three more not getting compensated, and I think that's the question.

A. Yes. Well, I would think...

Q. I mean, as an Outreach, wouldn't it make sense? I mean, if an Outreach program only produced two claims and there's a potential three out there...

A. Ideally, this is probably so. However, I am sure that the publicity that this received at the time, in December of 1978, I think, every paper was picking up on the Ottawa...that there were very few people that did not know.

In fact, we had people contacting our Ottawa office - 'I worked at the plant, when can I start my pension'.

You know, the impression was given in the paper that all you had to do was say that you worked at the Ottawa gas mask, and the Compensation Board would give you a pension.

So...well, I'm sure that there several that were...or that most people were aware of the program.

Q. What about pursuing, again, the lung cancer cases that Dr. McDonald had identified?

Well...

A. The answer to that one is, the plant was not

A. (cont'd.) operational long enough for them to meet the guidelines for allowance. It was not in operation the required ten years.

DR. DUPRE: How long was it in operation now, 1937 to 1942?

THE WITNESS: 1937 to 1945.

DR. DUPRE: Oh, 1937, so it was...

THE WITNESS: No, no. Just a minute. 1937 to 1947, ten years.

DR. DUPRE: So that is long enough to meet with the guidelines.

THE WITNESS: Yes, but there is a very mobile work force. We determined that.

DR. MUSTARD: But hold on.

THE WITNESS: Yes?

DR. MUSTARD: I want to make sure I understand what was just said. It was my understanding that the latency concept was from time of first exposure to onset of the symptoms, that it did not require continual exposure during that exposure of time. Am I to understand that your guideline requires continuous exposure during that whole period of time, to the development of cancer? That you make no allowance for the fact that you can be exposed over a three year period and then there is a latency period of another seventeen years before the cancer actually manifests itself? That you will not accept...that your guideline will not accept that exposure over say a three year period, followed by ...

THE WITNESS: No. The guidelines for lung cancer, the required exposure is ten years, and a latency...

DR. MUSTARD: I didn't interpret that as continuous exposure. So you mean continuous exposure! Can you tell me what the grounds for that are?

THE WITNESS: I think those were devised before I got into the chest service division. That might be a good question for Dr. McCracken.

DR. MUSTARD: Thank you.

MISS JOLLEY: Q. Just one last question, since you did take epidemiology 101 last year. Having sat through all last summer would you not think that perhaps these guidelines ought to be revised, in light of the evidence that was given last year?

THE WITNESS: A. We have considered revising them, and I had done studies on our allowed claims, and the decision of...

Q. I think the more important one would be the disallowed claims.

A. Yes. The disallowed claims are...it's easy to get a handle on an allowed claim because of the statistics that we keep - that is, the medical department keeps. It is not as handy to ...

Q. But when you are revising the guidelines, would you not be addressing the disallowed claims as the problem that you are trying to address in revising guidelines?

A. Yes, I appreciate this. Hindsight is an awful lot better than foresight, and mind you, since epidemiology 101, I personally am keeping better track of the claims that come across my desk now than I did prior to last summer, for this particular reason.

MISS JOLLEY: I have no further questions, thank you.

DR. MUSTARD: Can I come back to these guidelines, then?

On your guideline for lung cancer, that you gave to us, approved by the Board January 5th, 1976, where it says... have you got that guideline...it's two, one.

THE WITNESS: Page twenty-two.

DR. MUSTARD: "There is a clear and adequate history of at least ten years occupational exposure to asbestos".

The way that is interpreted is this - ten years continuous occupational exposure to asbestos, is that correct?

THE WITNESS: Not necessarily. They can have two years exposure, two years no exposure, another two years, totalling ten.

DR. MUSTARD: But supposing I had two years exposure and twelve years later I came down with lung cancer. I would be excluded by that guideline?

THE WITNESS: That is true.

DR. MUSTARD: Okay. I see the question for Dr. McCracken.

DR. DUPRE: Let me see again if I understand the guideline. As I would understand it, yes, you are excluded from the guideline, which to me means that you do not have the benefit of what is administratively a virtually irrebuttable presumption in your favor?

THE WITNESS: Yes.

DR. DUPRE: But now, as I understand it, this does not preclude you from being looked upon on a case-by-case basis?

THE WITNESS: That's right. Under section two, three of the guideline.

DR. DUPRE: Right.

I guess that being so, this does make me again wonder about the utility of, for example, following up on Dr. McDonald's cancer cases, for example. But that's...I just want to think that over.

DR. MUSTARD: That same guideline holds for mesothelioma, I see.

THE WITNESS: Yes.

DR. DUPRE: Any other questions?

MR. LASKIN: I think we're at Mr. Orlando Buonastella, filling in for Mr. McCombie this afternoon.

DR. DUPRE: Oh. Mr. Orlando (sic), you are filling in for Mr. McCombie?

MR. BUONASTELLA: Yes.

DR. DUPRE: If you please, Mr. Orlando. (sic)

CROSS-EXAMINATION BY MR. BUONASTELLA

Q. It's related to the White Paper, and I'm a little bit out of the topic that we have been discussing now, and I'm looking at section eight, one of the proposed legislation.

Basically, it's a provision that the Board will compensate for industrial diseases, to the victim and dependents - no conditions where the industrial disease is recognized by the Board, unless - and I'm quoting now -

> "Unless at the time of entering into the employment the worker has willfully or falsely represented himself in writing as not having previousl suffered from the industrial disease".

Now, does this provision make any medical sense to you? Is it justified medically? It doesn't make any difference. It seems to me that the worker is still...still has a disability, and I'm assuming that he does have it, and this provision bothers me if we are accepting the principle that a person who has a disability should be compensated no matter what, so I'm wondering if there is any medical reason for putting in this provision.

A. As a relatively minor member of the Compensation Board, I would feel that this is a policy matter and I would not like to comment on that publicly.

Q. Okay.

DR. DUPRE: It may be a good question for Dr. Al MacDonald.

MR. LASKIN: I think it would be.

DR. DUPRE: Okay. Any other questions?

Counsel, do you wish to...

MR. LASKIN: I just want to come back to Linda Jolley's question for a moment, and just follow it through for a moment.

EXAMINATION BY MR. LASKIN

Q. I suppose...you have told her that with respect to the gas mask workers and so on, you didn't seek to isolate out the lung cancer cases because you felt in any event they wouldn't fit within the guidelines?

A. Yes.

Q. The same, arguably, would be true of the mesothelioma cases.

A. We were able to satisfy ourselves, and with mesothelioma we have not accepted a claim for mesothelioma that exposure was proven - regardless of what the guidelines say.

Q. You have accepted all claims?

A. Accepted all claims, that's right.

Q. In which the exposure was proven?

A. Yes, that's right.

Q. Yes.

A. And as there is a ten year period in lung cancer, and our information that we were able to derive from our investigation was very scanty, we didn't feel that we had enough proof of a ten year exposure for lung cancer. We were prepared to accept the mesothelioma, but not the lung cancer.

Q. Let me ask you this, Dr. Dyer, taking off your Outreach program hat for a moment and putting on your hat where

Q. (cont'd.) you have to give some advice to a claims adjudicator or the claims review branch on applications for compensation, have you ever recommended compensation in the case of an application arising out of asbestos-related lung cancer where the exposure criteria did not meet the guideline?

A. Yes, we have, and I have some statistics with me. I can comment on that.

Of fifty-one lung cancer claims due to asbestos, that have been allowed, the lowest exposure is point eight three of a year. That claim was allowed by the appeal board.

Q. By the appeal board?

A. Yes.

Q. Had it been disallowed up to...

A. That's right. That's right.

The mean exposure in the fifty-one was twenty-five point twenty-five years. Pardon me, that's latency.

In exposure, the mean was twenty-one point zero three years...the standard deviation, eight point seven, with a high of twenty-nine point eight one years.

Q. Getting away from that, can you tell us a figure as to how many were allowed that didn't fit within two point one, two point two of the guidelines? Who didn't meet the ten-in- ten rule, if I can call it that?

A. Ten in ten? There were five allowed that had exposure of less than twelve point two five years. So how many of those between the two point five and the ten...or twelve point five and the ten, I would have to go back to my original figures to determine that.

Q. You haven't got a figure with you today that will tell us how many allowed claims for lung cancer there are that don't fit within the ten-in-ten rule?

A. It would appear to be three...

Q. Three?

A. ...that were allowed, and less than ten.

Q. Is there a corresponding figure for the rejections, denials?

A. No, we haven't...I haven't run the rejections through. I tried to do it, but there wasn't sufficient information, or over the bulk of them there wasn't sufficient information on my record cards to run the thing through. We would have to get each of the claims out to do this, but this could be done.

Q. What was there about the exposure for point eight three of a year that...ten months, I take it...that prompted the allowance of the claim? Was it allowed on medical grounds?

A. No, it was not allowed on medical grounds. It was purely an appeal board decision.

Q. Against, I take it, the advice and recommendations of the medical services division?

A. Yes, yes.

Q. Just a final question on Outreach programs. Has an Outreach program been tried with respect to any substance other than asbestos, within the WCB?

A. Not that I know of.

MR. LASKIN: No questions.

MISS JOLLEY: May I have one further...just flowing from yours, John, I'm sorry...

MR. LASKIN: Please.

DR. DUPRE: Please.

CROSS-EXAMINATION BY MISS JOLLEY

Q. You made a statement that no mesothelioma case has ever been disallowed if there was indeed occupational exposure...

A. Proven, right.

Q. Proven.

I was involved in a case of mesothelioma at Holmes Foundry in Sarnia, which in fact was rejected. It was subsequently awarded by the appeal adjudicator, but only after we had submitted extensive worker evidence of the actual exposure. But he was a night watchman in the insulation plant for something like five or six months, and he was rejected because of that.

A. What year was the rejection?

Q. The rejection was two and a half years ago, or three years ago. What does that mean? I mean, what difference does it mean as to the year of rejection? Have you changed your policy towards mesothelioma?

A. We are looking upon it a little different in recent years, yes. Because we have gradually accepted that any exposure, if proven, we will accept the claim.

Q. Well, this was, in fact, on the employer's S eight form, or whatever it was, that he in fact had been exposed.

MISS JOLLEY: Thank you very much, Dr. Dyer.

EXAMINATION BY MR. LASKIN

Q. Could I just...I'm sorry, I'm going to do this to Linda, but could I just...could you just give me the exposure information on the other two allowed cancer claims?

You told me that one of the three that didn't meet the ten-in-ten rule, I take it one of them was the ten months allowed by the appeal board, but not on medical grounds?

What was the evidence on the other two?

A. Six years.

Q. Exposure?

A. Yes.

Q. Recommended for compensation by the medical

Q. (cont'd.) services division?

A. Yes. And seven years.

DR. MUSTARD: Are these mesotheliomas?

THE WITNESS: No, these are lung cancers.

MR. LASKIN: Q. Again recommended by the medical services division?

THE WITNESS: A. Yes, yes.

Q. Anything unusual about the exposure?

A. One of them had a twenty percent pension for asbestosis.

Q. Ah, and what about the other one?

A. The information that I had on my card does not show the..whether they had asbestosis or not.

Q. It's possible, though?

A. Yes.

DR. DUPRE: And that would be possible, including the ten months exposure?

MR. LASKIN: Yes, but as I understand Dr. Dyer's evidence on the ten month exposure, it was allowed by the appeal board but not for medical reasons.

THE WITNESS: That's right.

MR. LASKIN: Q. I take it at the end of the day it might well be the case that there is no allowed claim that doesn't meet the ten-in-ten rule or that doesn't have coexisting asbestosis, apart from that unusual case before the appeal board and the jury may be out on the one other one?

THE WITNESS: A. They may be. They may be.

DR. MUSTARD: But I can take it that in the Outreach program, in the application of the guidelines, a person who had lung cancer recorded, who did not have the ten years of continuous exposure, probably would not have been picked up, is that right? In the way you have planned the guidelines?

THE WITNESS: Would not have been allowed, yes.

DR. MUSTARD: Yes.

THE WITNESS: Yes, would not have been allowed.

DR. MUSTARD: I think you answered this for Mr. Laskin, but I would like to hear it again. How many cases of lung cancer have been denied that came forward, that did not have the sufficient continuous exposure? You must have denied some.

THE WITNESS: Yes, we have.

DR. MUSTARD: Do you know how many that would be?

THE WITNESS: I haven't got my statistics sheet here. I intended to bring it down, but I...

DR. MUSTARD: Could you get us that information?

THE WITNESS: Oh, yes. Yes.

MR. LASKIN: Q. Could you get us that information? Could you get it for us also with respect to GI cancer, and laryngeal cancer?

THE WITNESS: A. Yes.

Q. Because I think...we just don't appear to have that.

MR. LASKIN: I think those are all my questions, Mr. Chairman.

DR. DUPRE: I have no further questions.

Dr. Dyer, may I thank you very much indeed for being here this afternoon.

MR. LASKIN: Thank you, Dr. Dyer.

Mr. Chairman, we have Mr. Pearce who is available to testify Monday, beginning at ten o'clock, if that's convenient for the Commissioners.

DR. DUPRE: Thank you, counsel.

We now rise until ten o'clock Monday morning.

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THE FOREGOING WAS PREPARED FROM THE TAPED RECORDINGS OF THE INQUIRY PROCEEDINGS

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